ATTENTION: GROUP NUMBER 3728

PROTEST UNDER 37 CFR 1.291(a)
Against Pending U.S. Patent Application Serial No. 11/443,617

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

APPLICANT: Grove, et al. **Group Number: 3728**

SERIAL NUMBER: 11/443,617 **Examiner: Patterson, Marie D.**

FILING DATE: May 30, 2006 **Status: Pending**

TITLE: Footwear with Separable Upper and Sole Structure

PROTEST UNDER 37 CFR 1.291(a) Against Pending U.S. Patent Application Serial No. 11/443,617

Director of Group Number 3728
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

CERTIFICATION UNDER 37 C.F.R. 1.10

I hereby certify that, on the date shown below this correspondence is being mailed as "Express Mail Post Office to Addressee" Mailing Label No. _____.

Date: November 15, 2007

Signature _____
Robert M. Lyden

IDENTIFICATION OF APPLICATION

This is the first protest by the party in interest under 37 CFR 1.291(a) against the above identified pending U.S. patent application serial number 11/443,617 for "Footwear with Separable Upper and Sole Structure" by Grove, et al., which is assigned to Nike, Inc., filed May 30, 2006, filed February 23, 2005, and published as US 2006/0213088 A1 on September 28, 2006. The case is pending and before Examiner Marie D. Patterson in Group Art Unit 3728.

SERVICE OF PAPERS

Service of a complete copy of these papers was made by depositing a copy of these papers with the United States Postal service on November 15, 2007 in an envelope that was mailed with sufficient postage as "Express Mail Post Office to Addressee," Mailing Label No. _____, and addressed to the applicant's last named attorney of record, namely, William F. Rauchholz of Banner & Witcoff, Ltd., 1100 13th Street, N.W., Suite 1200, Washington, D.C. 20005-4051, phone: (202) 824-3000, and another complete copy of these papers was also sent to James A. Niegowski, an in-house patent attorney for Nike, Inc., by depositing another copy with the United States Postal service on November 14, 2007 with sufficient postage as first class mail in an envelope that was addressed to James A. Niegowski, Nike, Inc., One Bowerman Drive, Beaverton, OR 97005, phone: (503) 671-6453. Attached as evidence of service is a copy of "Express Mail Post Office to Addressee" Mailing Label No._____.

LISTING OF INFORMATION RELIED ON

Listed on the attached Form PTO-1449 are the patents, publications or other information relied upon.

COPIES OF LISTED ITEMS

Obviously, the U. S. Patent and Trademark Office already have complete copies of all these documents which are at the disposal of the examiner. However, a complete copy of U.S. 7,107,235 has been provided to the examiner as a courtesy for the purpose of facilitating review of this matter. In addition, some relevant excerpts of the other U.S. patent applications and patents listed on the provided Form PTO-1449 are also attached as Exhibits A-G. As will be discussed below, I previously provided complete copies of all the patent applications listed on the attached Form PTO-1449 to Nike, Inc. in 2002.

RELEVANCE OF LISTED ITEMS

The named applicant in pending U.S. patent application 11/443,617 is James A. Grove, et al., and this patent application is assigned to Nike, Inc. For the sake of simplicity and identification purposes, the relevant events and actions relating to this matter on the part of either the applicant, other employees of Nike, Inc., and patent attorneys representing the applicant or Nike, Inc. may hereinafter simply be referred to as "Nike."

In 2002, I provided to Nike copies of the following three provisional patent applications, and four pending patent applications. In this regard, Exhibits A-E indicated below were provided in March, 2002, and Exhibits F and G were provided within a day of their respective filing dates with the U.S. Patent and Trademark Office.

A) U.S. patent application serial number 09/523,341, filed March 10, 2000, now U.S. 6,449,878 which includes Figures 1-29. The title page only of this patent is attached as Exhibit A.

B) U.S. patent application serial number 09/573,121, filed May 17, 2000, now U.S. 6,601,042 which includes Figures 1-44. The title page only of this patent is attached as Exhibit B.

C) U.S. provisional patent application serial number 60/292,644, filed May 21, 2001 which includes Figures 1-253. Pages 1, 76-78, and also Figures 45-47 are attached as Exhibit C.

D) U.S. provisional patent application serial number 60/345,951, filed December 29, 2001 which includes Figures 1-360. Pages 1, 94-96, 135-136, 140-141, 175-176, and also Figures 45-47, 254-260, 283-284, and 351-354 are attached as Exhibit D.

E) U.S. provisional patent application serial number 60/360,784, filed March 1, 2002 which includes Figures 1-500. Pages 1, 107-109, 149-151, 154, 189-190, and Figures 45-47, 254-260, 283-284, and 351-354 are attached as Exhibit E.

F) U.S. patent application serial number 10/152,402, filed May 21, 2002, now U.S. 7,016,867 which includes Figures 1-523. The title page, as well as pages including Columns 93-95, 129-133, 161-162, 167, 174, 183, 195, and also drawing Figures 45-47, 254-260, 283-284, and 351-354, 391-393, 439-440, and 491-492, are attached as Exhibit F.

G) U.S. patent application serial number 10/279,626, filed October 24, 2002, now U.S. 7,107,235 which includes Figures 1-575. A complete copy of this patent has been provided as Exhibit G.

Copies of the materials in Exhibits A-G were provided to Nike in 2002 on a non-confidential basis. My information and patent applications provided to Nike are considered relevant prior art.

Pending Nike patent application serial number 11/443,617 as to which this protest is filed and which is presently before the examiner is a continuation of U.S. patent application serial number 11/134,112, filed May 19, 2005, now U.S.

7,076,890, which in turn is a continuation of U.S. patent application serial number 10/349,398, filed January 21, 2003, now U.S. 6,915,596.

The key patentable matter in the protested patent application serial number 11/443,617 relates to a particular mating "locking system" structure as between the upper and sole for removably securing the two parts together. My prior patents and patent applications both show and recite substantially all of the important features in the claims of pending U.S. patent application serial number 11/443,617 being protested.

U.S. 7,107,235, and U.S. 7,016,867 are lengthy documents, and so one may miss relevant teachings contained therein when considering these patent references as prior art. In brief, while not meaning to disregard other figures and passages which may be relevant, the following passages and figures of U.S. 7,107,235 are particularly relevant to the protested pending Nike U.S. patent application serial number 11/443,617.

In U.S. 7,107,235, the examiner's attention is directed to, e.g. Figures 491, 492, and in particular, notice the "undercut 154," and discussion in Column 183, lines 34-47. The same Figures 491-492 were also present in my U.S. patent application serial number 10/152,402, filed May 21, 2002, now U.S. 7,016,867, and were discussed in the specification at Column 172, Lines 52-65, as shown in the attached excerpt Exhibit F. These figures were also present in my provisional patent application 60/360,784, filed March 1, 2002, as shown in the attached excerpt Exhibit E.

Further, in U.S. 7,107,235, the examiner's attention is also directed to Figure 554, and relevant discussion in the specification which can be found at Column 195, Lines 4-14, and in particular, notice that Figure 554 shows a "plastic material 138" on the bottom side of the upper. An examination of Figures 491, 492, and 554 provides evidence regarding my prior teachings.

In addition, in U.S. 7,101,235, the examiner's attention is also directed to Figures 254-260 and Column 129, Lines 59-67 and continuing through Column 131, Lines 1-12; Figures 351-354 and Column 161, Lines 61-67 and continuing through Column 162, Lines 1-55; Figures 391-393 and Column 167, Lines 7-18; and, Figures 439-440 and Column 174, Lines 36-47.

As concerns my previous filings, provisional patent application serial number 60/292,644, filed on May 21, 2001, included, e.g., Figures 45 and 47, as provided in the attached excerpt Exhibit C.

Provisional patent application serial number 60/345,951 filed December 29, 2001 included, e.g., Figures 254-260, and 351-354, as provided in the attached excerpt Exhibit D. In this regard, it can be seen that the outsole "traction members 115" shown in Figures 352-353 of Exhibit D do more than

merely pass through openings in the shoe upper, but rather project outwardly on the medial, lateral, and anterior sides to positively mechanically engage the shoe upper. Further, a "plastic material 138" is shown on the "inferior side 38" of the shoe "upper 23" in Figures 351 and 354 of Exhibit D. The examiner should notice that my provisional patent application serial number 60/345,951 was filed December 29, 2001, thus over a year before Nike filed patent application serial number 10/349,398 on January 21, 2003, which is now U.S. 6,915,596.

Moreover, I filed one more provisional patent application serial number 60/360,784 on March 1, 2002 (Exhibit E), and then two formal utility patent applications containing relevant subject matter in 2002: U.S. patent application serial number 10/152,402 on May 21, 2002, now U.S. 7,016,867 (Exhibit F); and, U.S. patent application serial number 10/279,626, filed October 24, 2002, now U.S. 7,107,235 (Exhibit G).

After Nike received copies of all the above recited pending patent applications, and informed me that they did not have an interest in my intellectual property, they filed patent application serial number 10/349,398, now U.S. 6,915,596, on January 21, 2003 including some of the same subject matter shown in my patent applications, which have been indicated above.

On February 8, 2005, Nike submitted a supplemental IDS by FAX to the examiner which cited my U.S. 2003/0051372, and U.S. 2003/0088807 which correspond to now issued U.S. 7,076,890, and U.S. 7,107,235. I had noticed serial number 10/349,398, filed January 21, 2003, now U.S. 6,915,596, which had been published as U.S. 2004/0148803 A1 on August 5, 2004, and called James A. Niegowski at Nike World Headquarters in Beaverton, Oregon, and then met with him for lunch in order to discuss this matter. In the course of that meeting I raised the issue of Nike's pending serial number 10/349,398 and showed Niegowski, e.g., Figures 491-492, and 554 that appear in U.S. publication 2003/0088807 and both indicated and read to him the relevant passages of the specification, as they now appear in U.S. 7,107,235, e.g., at Column 183, lines 34-47, and Column 195, Lines 4-14.

Following that meeting, Nike cited my publications U.S. 2003/0051372, and U.S. 2003/0088807, but did not from the record point out, e.g., Figures 491, 492, and 554, or the text passages discussing these figures. Given that, e.g., U.S. 7,107,235 contains 575 drawing figures, and the issued patent specification and claims encompass 214 written columns, without indicating to the examiner the most relevant portions of the document to consider, it would be understandable for any examiner handling the case to miss, e.g., the presence of the small "undercut 154" present in Figures 491-492.

This protest is filed to specifically bring to the attention of the examiner the pertinent portions of my prior art that render pending claims in patent application serial number 11/443,617 unpatentable.

ACKNOWLEDGEMENT OF PROTEST BY PTO

Please acknowledge receipt of this protest by stamping and returning the green attached self addressed postcard.

IDENTIFICATION OF PROTESTOR

Respectfully submitted by,

_____

Robert M. Lyden

18261 S. W. Fallatin Loop
Aloha, OR 97007
E-mail: robertlyden@comcast.net
Phone: (971) 219-1200

Protest under 37 CFR 1.291(a)

FORM PTO-1449	Atty. Docket No.:	Serial No.:
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT	Applicant:	
	Filing Date	Group Art:

U.S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
	AA	6,449,878	9/17/2002	LYDEN	36	27	
	AB	6,601,042	7/29/2003	LYDEN	705	26	
	AC	60/292,644		LYDEN			5/21/2001
	AD	60/345,951		LYDEN			12/29/2001
	AE	60/360,784		LYDEN			3/1/2002
	AF	7,016,867	3/21/2006	LYDEN	705	26	5/21/2002
	AG	7,107,235	9/12/2006	LYDEN	705	26	10/24/2002
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Sub Class	Translation Yes	No
	AL							
	AM							
	AN							

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AO	
	AP	
	AQ	

EXAMINER:	DATE CONSIDERED:

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Exhibit A

US006449878B1

(12) **United States Patent**
Lyden

(10) **Patent No.: US 6,449,878 B1**
(45) **Date of Patent: Sep. 17, 2002**

(54) **ARTICLE OF FOOTWEAR HAVING A SPRING ELEMENT AND SELECTIVELY REMOVABLE COMPONENTS**

(76) Inventor: **Robert M. Lyden**, 18261 SW. Fallatin Loop, Aloha, OR (US) 97707

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/523,341**

(22) Filed: **Mar. 10, 2000**

(51) **Int. Cl.**[7] **A43B 13/28**
(52) **U.S. Cl.** **36/27**; 36/38
(58) **Field of Search** ..... 36/27, 28, 30 R, 36/38, 7.8

(56) **References Cited**

U.S. PATENT DOCUMENTS

75,900 A		3/1868	Hale et al.	36/28
RE9,618 E		3/1881	Nichols	36/27
298,844 A		6/1884	Glanville	
318,366 A		5/1885	Fitch	
324,065 A		8/1885	Andrews	36/37
337,146 A		3/1886	Gluecksmann	36/7.8
357,062 A	*	2/1887	Buch	
413,693 A		10/1889	Walker	
418,922 A		1/1890	Minahan	
427,136 A		5/1890	Walker	36/7.8 X
620,582 A		3/1899	Goff	

(List continued on next page.)

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DE	620963	10/1935	
DE	2419870	11/1974	
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DE	2543268 a1	3/1977	A43C/15/16
DE	2851535 A1	4/1980	A43B/13/26
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(List continued on next page.)

OTHER PUBLICATIONS

Runner's World, Fall 2000 Shoe Buyer's Guide, Sep., 2000.
Patent application No. 09/228,206, filed Jan. 11, 1999 by Robert M. Lyden entitled "Wheeled Skate with Step–in Binding and Brakes".
Patent application No. 09/570, 171, filed May 11, 2000, by Robert M. Lyden entitled "Light Cure Conformable Device for Articles of Footwear and Method of Making the same".
8 Photos of NIKE Secret Prior Art Published Oct., 2000.
2 Pages, DuPont Website Information Re:ZYTEL© and Nike Track Shoes dated Feb. 2, 2001, published Oct., 2000.
K. J. Fisher, "Advanced Composites Step into Athletic Shoes," *Advanced Composites*, May/Jun. 1991, pp. 32–35.
Product Literature from L.A. Gear regarding the Catapult Shoe Design.
Discovery, Oct. 1989, pp. 77–83, Kunzig.

Primary Examiner—Ted Kavanaugh
(74) *Attorney, Agent, or Firm*—Westman, Champlin & Kelly, P.A.

(57) **ABSTRACT**

The article of footwear taught in the present invention includes a spring element which can provide improved cushioning, stability, running economy, and a long service life. Unlike the conventional foam materials presently being used by the footwear industry, the spring element is not substantially subject to compression set degradation and can provide a relatively long service life. The components of the article of footwear including the upper, insole, spring element, and outsole portions can be selected from a range of options, and can be easily removed and replaced, as desired. Further, the relative configuration and functional relationship as between the forefoot midfoot areas of the article of footwear can be readily modified and adjusted. Accordingly, the article of footwear can be customized by a wearer or specially configured for a select target population in order to optimize desired performance criteria.

30 Claims, 9 Drawing Sheets

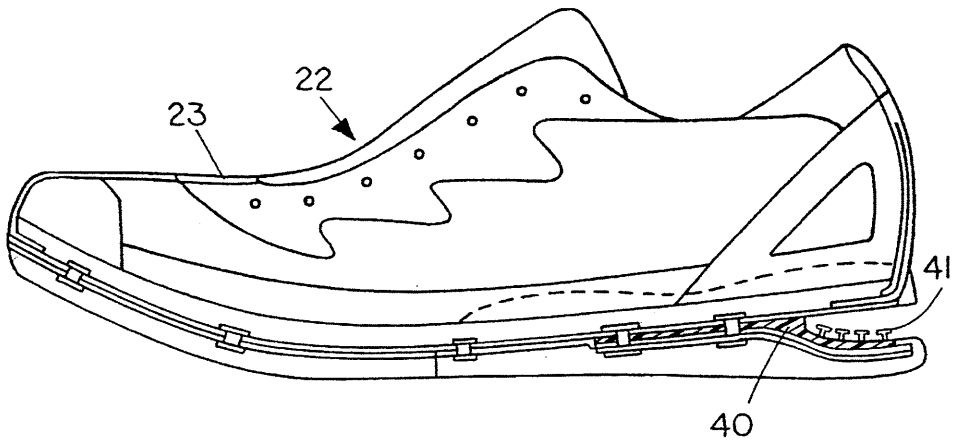


Exhibit B

US006601042B1

(12) **United States Patent**
Lyden

(10) **Patent No.: US 6,601,042 B1**
(45) **Date of Patent: *Jul. 29, 2003**

(54) **CUSTOMIZED ARTICLE OF FOOTWEAR AND METHOD OF CONDUCTING RETAIL AND INTERNET BUSINESS**

(75) Inventor: **Robert M. Lyden**, 18261 SW. Fallatin Loop, Aloha, OR (US) 97007

(73) Assignee: **Robert M. Lyden**, Aloha, OR (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **09/573,121**

(22) Filed: **May 17, 2000**

Related U.S. Application Data

(63) Continuation-in-part of application No. 09/523,341, filed on Mar. 10, 2000, now Pat. No. 6,449,878.

(51) **Int. Cl.**[7] **G06F 17/60**
(52) **U.S. Cl.** **705/26**; 36/27; 36/38
(58) **Field of Search** 705/26, 28, 27, 705/1; 36/1, 27, 38, 28, 78

(56) **References Cited**

U.S. PATENT DOCUMENTS

75,900	A	3/1868	Hale et al.	36/28
RE9,618	E	3/1881	Nichols	36/27
298,844	A	6/1884	Glanville	
318,366	A	5/1885	Fitch	
324,065	A	8/1885	Andrews	36/37
337,146	A	3/1886	Gluecksmann	36/7.8

(List continued on next page.)

FOREIGN PATENT DOCUMENTS

AT	33492	6/1908	
CA	1115950	1/1982	36/6
CH	425537	5/1967	
DE	59317	3/1891	
DE	620963	10/1935	
DE	1808245	2/1960	

(List continued on next page.)

OTHER PUBLICATIONS

Press Release, "NIKE iD™ Puts the Power of Design in the People's Hands", on www.Nikebiz.com, Nov. 2, 1999.*
Press Release, "Internet Mall attracts retailers", Oakland Tribune 9 (CA) pC1, Dec. 18, 1996 discloses that a specialty store Copy Caps (Cape Cod, MA) allows clients to design their own hats on the PCs on Interne (see copies of various displays of the www).*

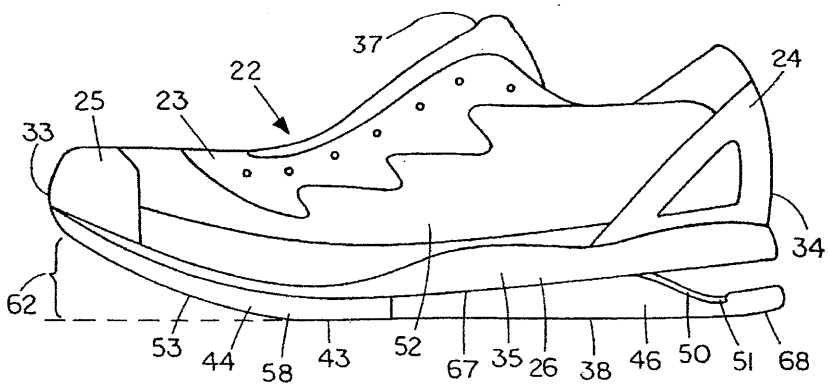
(List continued on next page.)

Primary Examiner—Wynn W. Coggins
Assistant Examiner—Yogesh C. Garg
(74) *Attorney, Agent, or Firm*—Westman, Champlin & Kelly, P.A.

(57) **ABSTRACT**

The present application teaches a device and method for adjusting the width, girth, and foot shape of an article of footwear. Lasting boards having different configurations and alternate positions for selectively affixing various portions of an upper can be used to adjust and customize the fit of an article of footwear for an individual wearer. The lasting board can also comprise a spring element which can provide improved cushioning, stability, running economy, and a long service life. Unlike the conventional foam materials presently being used by the footwear industry, the spring element is not substantially subject to compression set degradation and can provide a relatively long service life. The components of the article of footwear including the upper, insole, lasting board and/or spring element, and sole including possible midsole and outsole portions can be selected from a range of options, and can be easily removed and replaced, as desired. Further, the relative configuration and functional relationship as between the forefoot, midfoot and rearfoot areas of the article of footwear can be readily modified and adjusted. Accordingly, the article of footwear can be customized by a wearer or specially configured for a select target population in order to optimize desired performance criteria. Moreover, the present invention teaches a novel method of manufacturing an article of footwear, and also, a novel way of doing both retail and Internet business.

20 Claims, 16 Drawing Sheets



U.S. Ser. No. 60/292,644 Exhibit C

May 21, 2001

Customized Article of Footwear And Method of Conducting Retail and Internet Business

Cross Reference to Related Application

The present Provisional Patent Application is a Continuation-In-Part of pending U.S. Patent Application Serial Number 09/573,121, filed by the present inventor on May 17, 2000, which was entitled "Customized Article of Footwear and Method of Conducting Retail and Internet Business," which was a Continuation-In-Part of Serial Number 09/523,341, filed by the present inventor on March 10, 2000, which was entitled "Article of Foowear Having a Spring Element and Selectively Removable Components."

Field of the Invention

The present invention teaches an article of footwear including means for adjusting the foot shape, width, and girth. Further, the present invention teaches an article of footwear including a spring element, and selectively removable and renewable components. Moreover, the present invention teaches a novel method of manufacturing articles of footwear, and also, a novel way of doing both retail and Internet business.

Background of the Invention

The present invention teaches an article of footwear including means for adjusting the foot shape, width, and girth. Lasting boards having different configurations and alternate positions for selectively affixing various portions of an upper can be used to adjust and customize the fit of an article of footwear for an individual wearer. The lasting board can also comprise a spring element which can provide improved cushioning, stability, running economy, and a long service life. Unlike the conventional foam materials presently being used by the footwear industry, the spring element is not substantially subject to compression set degradation and can provide a relatively long service life. The components of the article of footwear including the upper, insole, lasting board or spring element, and sole including possible midsole and outsole portions can be selected from a range of options, and can be easily removed and replaced, as desired. Further, the relative configuration and functional relationship as between the forefoot, midfoot and rearfoot areas of the article of footwear can be readily modified and adjusted. Accordingly, the article of footwear can be customized by a wearer or specially configured for a select

a) Collecting data relating to a wearer's preferences and the anatomical features and measurements of the wearer's foot;
b) Creating information and intelligence for selecting and making an article of footwear for the wearer including creating a virtual model and providing the wearer with options;
c) Selecting specific options and creating a customized article of footwear; and,
d) Providing the customized article of footwear to the wearer.

In particular, as illustrated in a flow chart shown in Figure 253, a method of making and selling an article of footwear and way of doing business according to the present invention can include the following steps, or their equivalent:
a) Collecting data relating to a wearer's preferences and the anatomical features and measurements of a wearer's foot, and initiating or completing a financial transaction, thus selling an article of footwear;
b) Creating information and intelligence for making an article of footwear for the wearer;
c) Providing the information and intelligence to a physical location at which the article of footwear can be made;
d) Selecting a foot length;
e) Selecting a last bottom configuration or foot shape;
f) Selecting a foot width;
g) Selecting girth dimensions at a plurality of positions;
h) Selecting an upper, sole, and lasting board which can be removably affixed together in functional relation to provide the foot length, last bottom configuration or foot shape, foot width, and girth dimensions at the plurality of positions;
i) Removably affixing the upper, sole, and lasting board in functional relation with the use of mechanical engagement means, and completing the manufacture of the article of footwear; and,
j) Causing the article of footwear to be made available or delivered to a designated address.

Figure 45 is a medial cross-sectional side view of an alternate article of footwear 22 having outsole 43 portions affixed directly to the superior spring element 47 in the forefoot area 58 and / or midfoot area 67. Again, the superior spring element 47 can be made of a fiber composite material such as carbon fiber composite or a metal material such as titanium. The outsole 43 portions in the forefoot area 58 and also the midfoot area 67 can be affixed directly to the superior spring element 47 by conventional adhesives, and alternately, by self-adhesive means, or mechanical means. As shown in Figure 47, the upper 23 includes a plurality of openings 72 for accomodating the outsole 43 portions, thus when the superior spring element 47 including the outsole 43 portions is inserted into

the upper 23 the outsole 43 portions pass through the plurality of openings 72 as the superior spring element 47 is placed into proper position. An insole 31 can then be inserted into the upper 23, and the article of footwear 22 can then be donned by a wearer. Alternately, the insole 31 can also be affixed to the superior spring element 47 and inserted into the upper 23 as a single unit. Further, a portion of the anterior side 33 of the superior spring element 47 can be inserted into a sleeve 39 of the upper 23 and thereby be retained in position, as discussed and shown in connection with Figure 15. Moreover, a part including backing 30, or alternately, an anterior spring element 48.1 including a portion of the outsole 43 can be used near the anterior side 33 of the forefoot area 58, and be affixed with the use of mechanical engagement means including male and female parts, e.g., at least one hook 27 and opening 72, and / or a fastener 29, as shown in Figure 46. The inferior portion of the upper 23 can be made of a strong and long wearing textile material such as KEVLAR ®, and in particular, a NYLCO ® ballistic multi-ply fabric such as "N-915W" having a protective polyurethane face coating distributed by Worthen Industries, Inc., of 3 East Spit Brook Road, Nashua New Hampshire, and 530 Main Street, Clinton, Massachusetts. These fabric materials can be die cut, lazer cut, or cut using other conventional means.

Figure 46 is a medial cross-sectional side view of an alternate article of footwear 22 having outsole portions 43 affixed directly to the superior spring element 47 in the forefoot area 58, and further including a supplemental posterior spring element 49.1 in the rearfoot area 68. The addition of a supplemental posterior spring element 49.1 which can be selected from a range of alternate posterior spring elements 49.1 having different thicknesses or shapes enables the stiffness and mechanical properties of the superior spring element 47 in the rearfoot area 68 to be easily changed and customized. The possible greater relative thickness of the superior spring element 47 in combination with the supplemental posterior spring element 49.1 can be accomodated by stock-fitting it in the inferior portion of the insole 31, and by engineering the approximate thickness into the desired forefoot versus heel elevation differential. Also shown in Figure 46 is the use of a part including backing 30, or alternately, an anterior spring element 48.1 including a portion of the outsole 43 near the anterior side 33 of the forefoot area 58. When affixed in position the backing 30, or alternately, an anterior spring element 48.1 thereby traps a portion of the upper 23 between the backing 30 or anterior spring element 48.1 and superior spring element 47. The backing 30, or alternately, an anterior spring element 48.1 can be affixed with the use of mechanical engagement means including male and female parts, e.g., at least one hook 27 and opening 72, and / or a fastener 29, as shown in

Figure 46. The fasteners 29 can be visible from the bottom side as shown in the forefoot area 58, or alternately not be visible, as shown in the rearfoot area 68 in Figure 46.

Figure 47 is a bottom view of the alternate article of footwear 22 shown in Figure 45 having outsole 43 portions affixed directly to the superior spring element 47 in the forefoot area 58 and midfoot area 67. As shown in Figure 47, the outsole 43 portions pass through openings 72 in the inferior side 38 of the upper 23. The portions of the upper 23 about the openings 72 can form relatively narrow links or bridges 97 connecting the opposing sides of the upper 23, thus still substantially maintain the shape, and integrity of upper 23. A wide variety of structures and patterns can be used regarding the bridges 97 formed on the inferior side 38 of the upper 23. Shown in the rearfoot area 68 is inferior spring element 50 including posterior outsole element 46, a single fastener 29, and a locating pin 96. The locating pin 96 can be affixed to the inferior spring element 50, or alternately to the superior spring element 47 or posterior spring element 49 and be configured for passing through corresponding mating openings 72 in the various sub-components of the spring element 51. Further, the fastener 29 can be a loose part, or alternately can be affixed to one of the various sub-components of the spring element 51. Moreover, as shown in Figure 101, the fasterner 29 and / or locating pin 96 can have a round transverse cross-section, but at least one of these components preferably has a more complex geometric shape when viewed in a transverse cross-section, such as square, rectangle, pentagon, octagon, or star shape. Accordingly, the insertion of the fastener 29 and / or locating pin 96 can serve to lock the various sub-components of the spring element 50 into a specific geometric orientation so that they cannot be caused to shift or freely rotate about the axis of the fastener 29 and / or locating pin 96 when the sub-components are properly affixed in place.

Figure 48 is a medial cross-sectional side view of an alternate article of footwear 22 having outsole 43 portions affixed directly to an anterior spring element 48.1 in the forefoot area 58. Like the embodiment shown in Figure 16, the superior spring element 47 is affixed to the anterior spring element 48.1 by fasteners 29 thereby trapping and firmly securing an inferior portion of the upper 23 therebetween. However, the use of a single fastener 29 for securing the inferior spring element 50 and numerous gaps 98 between portions of the anterior outsole element 44 are shown in Figure 48.

Figure 49 is a medial cross-sectional side view of an alternate article of footwear 22 having outsole 43 portions affixed directly to an anterior spring element 48.2 in the forefoot area 58 which is affixed to an anterior spacer 55.2 and the superior spring element 47. Again, the shape and thickness of an anterior spacer 55.2 in various locations can be varied so as to create a sloped shape, or other complex shapes along the

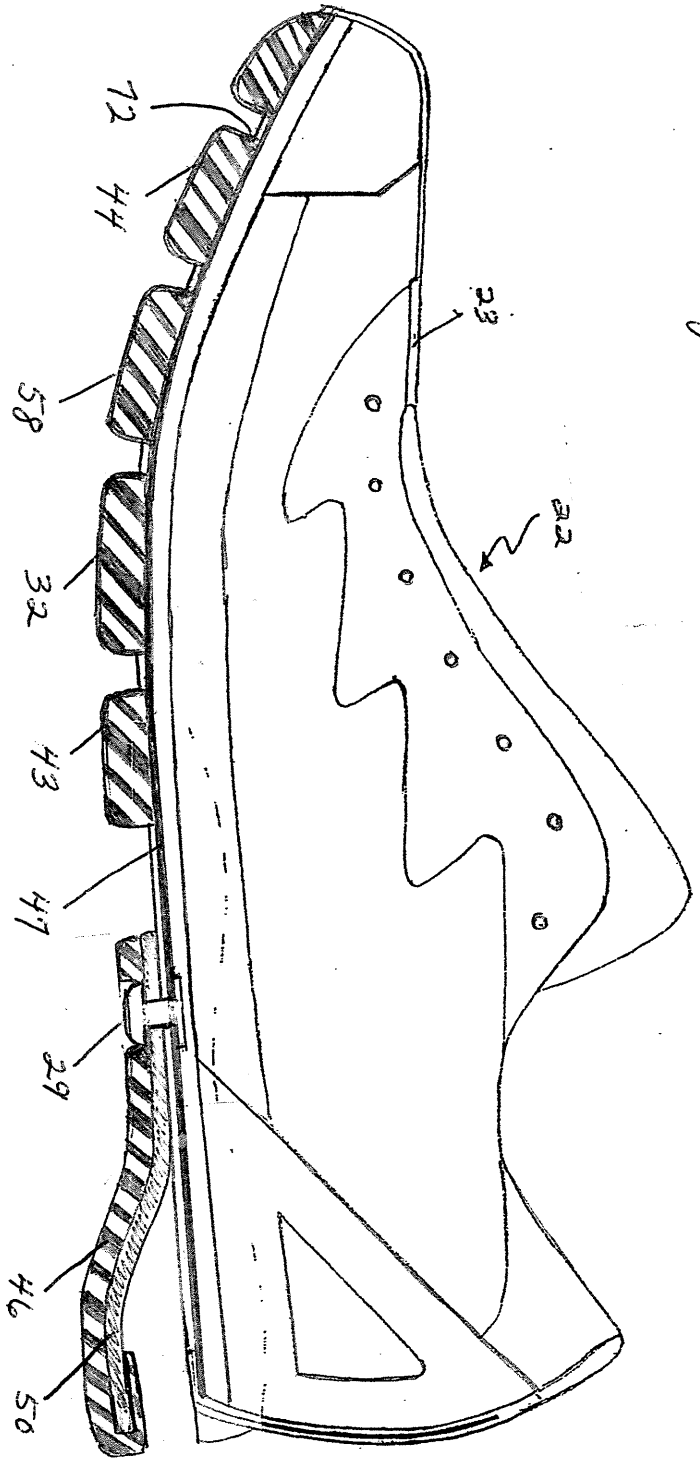


Figure 45

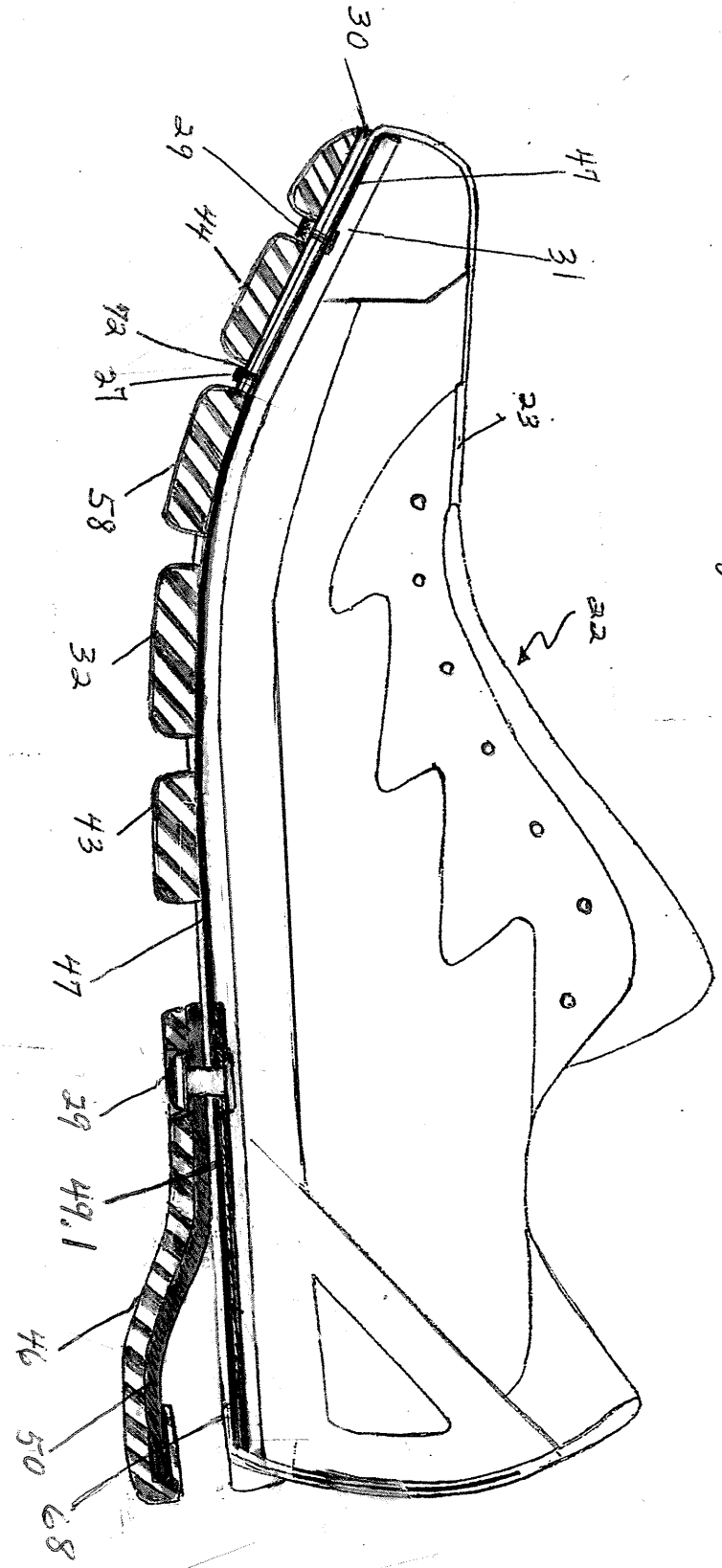
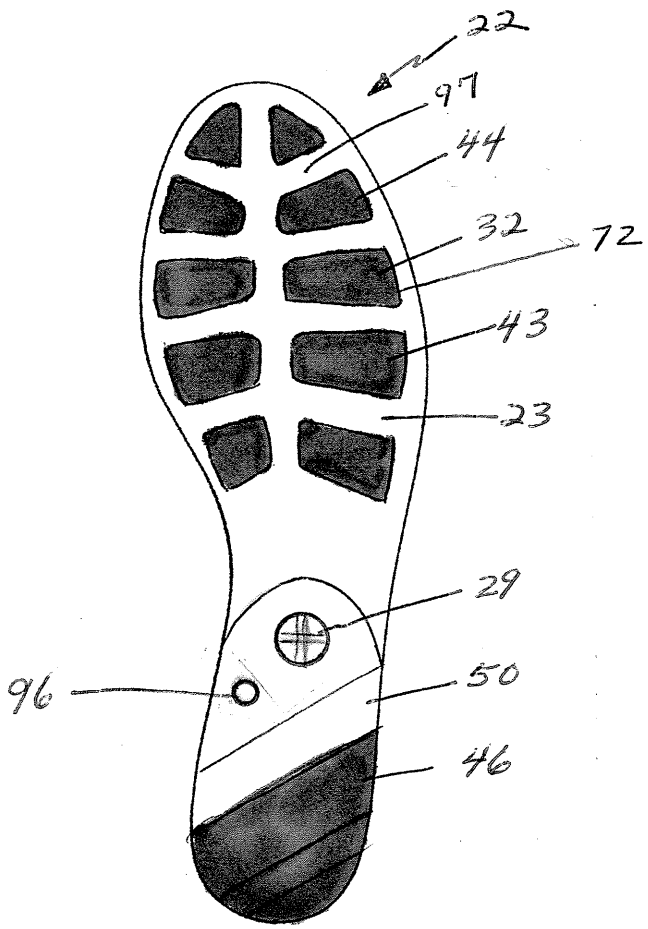


Figure 4b

Figure 47



U.S. Ser. No. 60/345,951 - Exhibit D

Dec. 29, 2001

Customized Article of Footwear And Method of Conducting Retail and Internet Business

Cross Reference to Related Application

The present Provisional Patent Application is a Continuation-In Part of pending Provisional Patent Application Serial Number 60/292,644, filed by the present inventor on May 21, 2001, which was entitled "Customized Article of Footwear And Method of Conducting Retail and Internet Business," which was a Continuation-In-Part of pending U.S. Patent Application Serial Number 09/573,121, filed by the present inventor on May 17, 2000, which was entitled "Customized Article of Footwear and Method of Conducting Retail and Internet Business," which was a Continuation-In-Part of Serial Number 09/523,341, filed by the present inventor on March 10, 2000, which was entitled "Article of Footwear Having a Spring Element and Selectively Removable Components."

Field of the Invention

The present invention teaches an article of footwear including means for adjusting the foot shape, width, and girth. Further, the present invention teaches an article of footwear including a spring element, and selectively removable and renewable components. Moreover, the present invention teaches a novel method of manufacturing articles of footwear, and also, a novel way of doing both retail and Internet business.

Background of the Invention

The present invention teaches an article of footwear including means for adjusting the foot shape, width, and girth. Lasting boards having different configurations and alternate positions for selectively affixing various portions of an upper can be used to adjust and customize the fit of an article of footwear for an individual wearer. The lasting board can also comprise a spring element which can provide improved cushioning, stability, running economy, and a long service life. Unlike the conventional foam materials presently being used by the footwear industry, the spring element is not substantially subject to compression set degradation and can provide a relatively long service life. The components of the article of footwear including the upper, insole, lasting board or spring element, and sole including possible midsole and outsole portions can be selected from a range of options, and can be easily removed and replaced, as desired. Further, the relative

In particular, as illustrated in a flow chart shown in Figure 253, a method of making and selling an article of footwear and way of doing business according to the present invention can include the following steps, or their equivalent:

a) Collecting data relating to a wearer's preferences and the anatomical features and measurements of a wearer's foot, and initiating or completing a financial transaction, thus selling an article of footwear;

b) Creating information and intelligence for making an article of footwear for the wearer;

c) Providing the information and intelligence to a physical location at which the article of footwear can be made;

d) Selecting a foot length;

e) Selecting a last bottom configuration or foot shape;

f) Selecting a foot width;

g) Selecting girth dimensions at a plurality of positions;

h) Selecting an upper, sole, and lasting board which can be removably affixed together in functional relation to provide the foot length, last bottom configuration or foot shape, foot width, and girth dimensions at the plurality of positions;

i) Removably affixing the upper, sole, and lasting board in functional relation with the use of mechanical engagement means, and completing the manufacture of the article of footwear; and,

j) Causing the article of footwear to be made available or delivered to a designated address.

Figure 45 is a medial cross-sectional side view of an alternate article of footwear 22 having outsole 43 portions affixed directly to the superior spring element 47 in the forefoot area 58 and / or midfoot area 67. Again, the superior spring element 47 can be made of a fiber composite material such as carbon fiber composite or a metal material such as titanium. The outsole 43 portions in the forefoot area 58 and also the midfoot area 67 can be affixed directly to the superior spring element 47 by conventional adhesives, and alternately, by self-adhesive means, or mechanical means. As shown in Figure 47, the upper 23 includes a plurality of openings 72 for accommodating the outsole 43 portions, thus when the superior spring element 47 including the outsole 43 portions is inserted into the upper 23 the outsole 43 portions pass through the plurality of openings 72 as the superior spring element 47 is placed into proper position. An insole 31 can then be inserted into the upper 23, and the article of footwear 22 can then be donned by a wearer. Alternately, the insole 31 can also be affixed to the superior spring element 47 and inserted into the upper 23 as a single unit. Further, a portion of the anterior side 33 of the superior spring element 47 can be inserted into a sleeve 39 of the upper 23 and thereby be retained

in position, as discussed and shown in connection with Figure 15. Moreover, a part including backing 30, or alternately, an anterior spring element 48.1 including a portion of the outsole 43 can be used near the anterior side 33 of the forefoot area 58, and be affixed with the use of mechanical engagement means including male and female parts, e.g., at least one hook 27 and opening 72, and / or a fastener 29, as shown in Figure 46. The inferior portion of the upper 23 can be made of a strong and long wearing textile material such as KEVLAR ®, and in particular, a NYLCO ® ballistic multi-ply fabric such as "N-915W" having a protective polyurethane face coating distributed by Worthen Industries, Inc., of 3 East Spit Brook Road, Nashua New Hampshire, and 530 Main Street, Clinton, Massachusetts. These fabric materials can be die cut, lazer cut, or cut using other conventional means.

Figure 46 is a medial cross-sectional side view of an alternate article of footwear 22 having outsole portions 43 affixed directly to the superior spring element 47 in the forefoot area 58, and further including a supplemental posterior spring element 49.1 in the rearfoot area 68. The addition of a supplemental posterior spring element 49.1 which can be selected from a range of alternate posterior spring elements 49.1 having different thicknesses or shapes enables the stiffness and mechanical properties of the superior spring element 47 in the rearfoot area 68 to be easily changed and customized. The possible greater relative thickness of the superior spring element 47 in combination with the supplemental posterior spring element 49.1 can be accommodated by stock-fitting it in the inferior portion of the insole 31, and by engineering the approximate thickness into the desired forefoot versus heel elevation differential. Also shown in Figure 46 is the use of a part including backing 30, or alternately, an anterior spring element 48.1 including a portion of the outsole 43 near the anterior side 33 of the forefoot area 58. When affixed in position the backing 30, or alternately, an anterior spring element 48.1 thereby traps a portion of the upper 23 between the backing 30 or anterior spring element 48.1 and superior spring element 47. The backing 30, or alternately, an anterior spring element 48.1 can be affixed with the use of mechanical engagement means including male and female parts, e.g., at least one hook 27 and opening 72, and / or a fastener 29, as shown in Figure 46. The fasteners 29 can be visible from the bottom side as shown in the forefoot area 58, or alternately not be visible, as shown in the rearfoot area 68 in Figure 46.

Figure 47 is a bottom view of the alternate article of footwear 22 shown in Figure 45 having outsole 43 portions affixed directly to the superior spring element 47 in the forefoot area 58 and midfoot area 67. As shown in Figure 47, the outsole 43 portions pass through openings 72 in the inferior side 38 of the upper 23. The portions of the upper 23 about the openings 72 can form relatively narrow links or bridges 97 connecting

the opposing sides of the upper 23, thus still substantially maintain the shape, and integrity of upper 23. A wide variety of structures and patterns can be used regarding the bridges 97 formed on the inferior side 38 of the upper 23. Shown in the rearfoot area 68 is inferior spring element 50 including posterior outsole element 46, a single fastener 29, and a locating pin 96. The locating pin 96 can be affixed to the inferior spring element 50, or alternately to the superior spring element 47 or posterior spring element 49 and be configured for passing through corresponding mating openings 72 in the various sub-components of the spring element 51. Further, the fastener 29 can be a loose part, or alternately can be affixed to one of the various sub-components of the spring element 51. Moreover, as shown in Figure 101, the fastener 29 and / or locating pin 96 can have a round transverse cross-section, but at least one of these components preferably has a more complex geometric shape when viewed in a transverse cross-section, such as square, rectangle, pentagon, octagon, or star shape. Accordingly, the insertion of the fastener 29 and / or locating pin 96 can serve to lock the various sub-components of the spring element 50 into a specific geometric orientation so that they cannot be caused to shift or freely rotate about the axis of the fastener 29 and / or locating pin 96 when the sub-components are properly affixed in place.

Figure 48 is a medial cross-sectional side view of an alternate article of footwear 22 having outsole 43 portions affixed directly to an anterior spring element 48.1 in the forefoot area 58. Like the embodiment shown in Figure 16, the superior spring element 47 is affixed to the anterior spring element 48.1 by fasteners 29 thereby trapping and firmly securing an inferior portion of the upper 23 therebetween. However, the use of a single fastener 29 for securing the inferior spring element 50 and numerous gaps 98 between portions of the anterior outsole element 44 are shown in Figure 48.

Figure 49 is a medial cross-sectional side view of an alternate article of footwear 22 having outsole 43 portions affixed directly to an anterior spring element 48.2 in the forefoot area 58 which is affixed to an anterior spacer 55.2 and the superior spring element 47. Again, the shape and thickness of an anterior spacer 55.2 in various locations can be varied so as to create a sloped shape, or other complex shapes along the longitudinal axis 69 or transverse axis 91 of the article of footwear 22. This can determine the relative position of the fulcrum created by the anterior spacer 55.2, but also the angular inclination, magnitude of deflection, and exhibited stiffness of the anterior spring element 48.2. As shown in Figure 235, the inferior spring element 50 has a flexural axis 59 which is generally transverse to the longitudinal axis 69. Alternately, an inferior spring element 50 having a flexural axis 59 that is diagonal with respect to the longitudinal axis 69 could be used. In addition, as shown in Figure 100, a midsole element 26 including a

inferior spring element 50 is located in the rearfoot area 68 and midfoot area 67, and also includes an anterior spring element 48.3 located in the forefoot area 58.

Figure 248 is a bottom plan view of an article of footwear 22 including a spring element 51 including a superior spring element 47, and an inferior spring element 50. The inferior spring element 50 is located in the rearfoot area 68 and midfoot area 67, and also includes a substantial notch 71 on the lateral side 36 in the midfoot area 67, and an anterior spring element 48.3 located in the forefoot area 58.

Figure 249 is a lateral side view of the embodiment shown in Figure 246 showing an article of footwear 22 including a midsole 26 on the medial side 35, a spring element 51 including a superior spring element 47, and an inferior spring element 50. The inferior spring element 50 is located on the lateral side 36 of the rearfoot area 68 and midfoot area 67, and also includes an anterior spring element 48.3 located on the lateral side 36 of the forefoot area 58.

Figure 250 is a flow diagram regarding a method of making an article of footwear.

Figure 251 is a flow diagram having greater detail regarding a method of making an article of footwear.

Figure 252 is a flow diagram regarding a method of making an article of footwear and way of doing business.

Figure 253 is a flow diagram having greater detail regarding a method of making an article of footwear and way of doing business.

Addition to the Specification Regarding the Detailed Discussion of the Invention

Figure 254 is a bottom view of an article of footwear 22 showing a plurality of traction members 115 associated with the sole 32 and outsole 43 extending through a plurality of openings 72 positioned between bridges 97 present in the inferior side 38 of the upper 23. The traction members 115 can be permanently or selectively and removably affixed to a lasting board 79 or spring element 51. The traction members 115 can extend through a plurality of openings in the forefoot area 58, midfoot area 67, rearfoot area 68, and partial or complete combinations thereof. Also shown by dashed lines is the approximate position of a strap 118 for the upper 23 including closure means 120 such as openings 72 and eyestays 139 for the passage of laces 121, or other mechanical engagement means such as VELCRO ® hook and pile.

Figure 255 is an internal view of the lateral side of the article of footwear 22 shown in Figure 254 showing a spring element 51 including traction members 115 extending through openings 72 in the upper 23, and a removable strap 118 which is substantially positioned inside the upper 23. The strap 118 can include openings for the passage of traction members 115 therethrough, or alternately, can include traction

members which can be caused to pass through openings in the inferior side 38 of the upper 23. The strap 118 also includes closure means 120 such a openings 72 and eyestays 139 for receiving laces 121, or other mechanical engagement means such as VELCRO ® hook and pile. As shown, portions of the strap 118 can extend through one or more openings 72 in the side or vamp 52 of the upper 23. As shown, the upper 23 includes a conventional U or V shaped opening on the superior side 37. However, as shown in Figure 283, the upper 23 could alternately be substantially closed on the superior side 37 in the manner of the so-called "Huarache style" shoe upper as commercialized by Nike, Inc., e.g., in the HUARACHE ®, MOWABB ®, and more recently, the PRESTO ®. Alternately, as shown in Figure 284, portions of the strap 118 can remain substantially within the upper 23, but can be exposed or otherwise accessible on the superior side 37 of the upper 23. The strap 118 can possibly be at least partially maintained in position relative to the upper 23 using a retainer 123.

Figure 256 is an external medial side view of an article of footwear 22 showing a spring element 51 including traction members 115 extending through openings 72 in the upper 23, and a removable strap 118 or quarter(s) 119 that is substantially positioned outside of the upper 23. The removable strap 118 or quarter(s) 119 includes closure means 120 such as openings 72 and eyestays 139 for the passage of laces 121, or other mechanical engagement means such as VELCRO ® hook and pile, and can be affixed in position by at least one fastener 29 which can also possibly be used to simultaneously affix the inferior spring element 50 to the superior spring element 47. The removable strap 118 or quarter(s) 119 can also include at least one traction member 115 and portion of the sole 32 or outsole 43. When the removable strap 118 or quarter(s) 119 is made from a thermoplastic or thermoset material a portion of the sole 32 or outsole 43 can be easily directed bonded or adhered thereto.

Figure 257 is a bottom view of the article of footwear 22 shown in Figure 256 showing a plurality of traction members 115 extending through openings 72 in the upper 23, and a removable strap 118 or quarters 119 which is substantially positioned outside the upper 23. As shown, the strap 118 or quarters 119 can include at least one middle outsole element 45, and closure means 120 such as openings 72 and eyestays 139 for the passage of laces 121, or other mechanical engagement means such as VELCRO ® hook and pile. The strap 118 or quarters 119 can be affixed in position by at least one fastener 29 which can also possibly be used to simultaneously affix the inferior spring element 50 to the superior spring element 47.

Figure 258 is a bottom view of an article of footwear 22 showing a plurality of traction members 115 extending through openings 72 in the upper 23 in a configuration or

124 for engaging a complimentary female part possibly associated with the upper 23, backing 30, or a portion of the sole 32.

Figure 281 is a side cross-sectional view of a spring element 51 and a fastener 29 including a male part 85 and a female part 86. The female part 86 includes an extension which can fit into the spring element 51 in the manner of a bushing 125, and also includes upper and lower male parts 85.1 consisting of flanges 124. The upper flange 124 serves as a stop against the inferior side 38 of the spring element 51 when the male part 85 and female part 86 are affixed in functional relation, whereas the lower flange 124 can be used to engage a complimentary female part possibly associated with the upper 23, backing 30, or a portion of the sole 32.

Figure 282 is a side cross-sectional view of a spring element 51 and a fastener 29 including a male part 85 including an upper and lower flange 124, and a female part 86. The female part 86 fits into recess on the superior side 37 of the spring element 51 and can be positioned into an opening 72 therein, and the male part 85 can then be affixed to the female part 86 from the inferior side 38 of the spring element 51. The upper flange 124 on the male part 85 serves as a stop against the inferior side 38 of the spring element 51 when the male part 85 and female part 86 are affixed in functional relation, whereas the lower flange 124 on the male part 85 can be used to engage a complimentary female part possibly associated with the upper 23, backing 30, or a portion of the sole 32.

Figure 283 is a medial side external view of an article of footwear 22 showing the use of a selectively removable strap 118, a spring element 51 having outsole 43 traction members 115 affixed thereto, and an upper 23 that is substantially closed on the superior side 37 in the manner of the so-called "Huarache style" shoe upper as commercialized by Nike, Inc., e.g., in the HUARACHE ®, MOWABB ®, and more recently, the PRESTO ®, that is, the upper 23 does not include a conventional U or V shaped opening on the superior side 37 in the forefoot area 58.

Figure 284 is an internal cross-sectional view of the lateral side of an article of footwear 22 showing a spring element 51 including traction members 115 extending through openings 72 in the upper 23, and a removable strap 118 which is substantially positioned inside the upper 23. The superior portions of the strap 118 are exposed, or otherwise accessible to a wearer on the superior side 37 of the upper 23. The strap 118 can include openings for the passage of traction members 115 therethrough, or alternately, can include traction members which can be caused to pass through openings in the inferior side 38 of the upper 23. The strap 118 also includes closure means 120 such a openings 72 and eyestays 139 for receiving laces 121, or other mechanical engagement means such as VELCRO ® hook and pile. As shown, portions of the strap 118 can extend through one

or more retainers 123 which are affixed in functional relation to the inside of the vamp 52 of the upper 23.

Figure 285 is a medial side exploded view of an article of footwear 22 which is somewhat similar to that shown in Figure 261 showing a plurality of components including an insole 31, superior spring element 47, a fastener 29 including a male part 85 and female part 86, anterior outsole element 44, middle outsole element 45, upper 23, inferior spring element 50, and posterior outsole element 46. As shown, the middle outsole element 45 can be formed as a separate and selectively removable part. The anterior outsole element 44 can be affixed to the superior spring element 47 which can possibly include an anterior spring element 48. Further, the middle outsole element 45 can be affixed via fastener 29 to the superior spring element 47 which can possibly include a posterior spring element 49. The posterior outsole element 46 can be affixed to the inferior spring element 50 by chemical bonding, vulcanization, adhesive, self-adhesive, and also by mechanical engagement means including male parts 85 and female parts 86 such as snap-fit, tongue and groove, hook 27, fastener 29, hook and pile, and the like. If desired, the anterior outsole element 44 and middle outsole element 45 can also be affixed to their corresponding parts using like means. The inferior spring element 50 can be selectively and removably affixed to the superior spring element 47 by a fastener 29 including a male part 85 and a female part 86. It can be readily understood that at least a portion the fastener 29 can be integrated or otherwise included as a portion of the inferior spring element 50, middle outsole element 45, or superior spring element 47, and as desired, the fastener 29 can either be made visible, or invisible to an observer or consumer on the exterior or interior of the article of footwear 22.

Figure 286 is a side cross-sectional view of a spring element 51 and a fastener 29 including a male part 85 affixed to a female part 86 which constitutes a portion of the sole 32 such as a midsole 26 or outsole 43.

Figure 287 is a medial side exploded view of an article of footwear 22 which is somewhat similar to that shown in Figure 285 showing a plurality of components including an insole 31, superior spring element 47 including female mating structures 129, a fastener 29 including a male part 85 and female part 86, anterior outsole element 44 including male mating structures 128, middle outsole element 45, upper 23, inferior spring element 50, and posterior outsole element 46. As shown, the middle outsole element 45 can be formed as a separate and selectively removable part. The middle outsole element 45 can be affixed via fastener 29 to the superior spring element 47. The anterior outsole element 44 can be affixed in functional relation to the superior spring element 47 by engagement of the male mating structures 128 with the female mating structures 129. The male mating

alternate material having substantially less elongation or elastic characteristics in making the upper 23 can be coordinated to create select areas having different known and desired elongation characteristics in order to suitably accommodate or compliment a wearer's anatomical characteristics and biomechanical motions when engaged in activity. See U.S. 5,377,430 grated to Hatfield et al., and assigned to Nike, Inc., hereby incorporated by reference herein.

Figure 351 is a bottom plan view of an upper 23 generally similar to that shown in Figures 349. Shown are a plurality of openings 72 for accommodating a plurality of traction members 115 associated with an anterior outsole element 44 generally similar to that shown in Figure 318. Also shown is a hexagon shaped opening 72 for accommodating the passage of a fastener 29, the inferior side of the tongue 127, and the presence of a plastic material 138 or alternate wear resistant material on the inferior side 38 of the upper 23.

Figure 352 is a lateral side 36 cross-sectional view of an article of footwear 22 generally similar to that shown in Figure 338, but including a number of differences. In this alternate embodiment, the openings 72 in the upper 23 for accommodating the outsole 43 traction members 115 associated with the anterior outsole element 44 extend not only on the inferior side 38, but also upwards about a portion of the medial side 35, lateral side 36, and also a portion of the anterior side 33 of the upper 23. Again, a portion of the backing 30 of the anterior outsole element 44 can extend upwards within the interior of the upper 23 forming stability elements 136.1, 136.2, 136.3, and 136.5, and traction members 115 which are not confined to the inferior side 38 of the upper 23 can extend therefrom. The structure can be advantageous for use in articles of footwear intended for use in activities requiring substantial lateral movement.

Figure 353 is a lateral side 36 cross-sectional view of an article of footwear 22 generally similar to that shown in Figure 341, but including a number of differences. In this alternate embodiment, the openings 72 for accommodating the outsole 43 traction members 115 can extend not only on the inferior side 38, but also upwards about a portion of the medial side 35, lateral side 36, and also a portion of the anterior side 33 of the upper 23. Again, stability element 136c can form a plurality of individual stability elements 136.1c, 136.2c, 136.3c, and 136.5c that extend upwards about the exterior sides of the upper 23, and traction members 115 which are not confined to the inferior side 38 of the upper 23 can extend therethrough. The structure can be advantageous for use in articles of footwear intended for use in activities requiring substantial lateral movement. As shown, the traction members 115 can be affixed to the backing 30 of the anterior outsole element 44 and can emerge through registered openings 72 in the upper 23 and

stability element 136c. Alternately, the traction members 115 can be directly affixed to a stability element generally similar to 136c which does not including openings 72. Again, the stability element 136c can be made of a transparent or translucent material as shown, or a thermoplastic material including decorative sublimation printing, and the like. The stability element 136c could have other configurations, and portions could possibly extends upwards to link with closure means such as laces or straps included in the construction of the upper 23.

Figure 354 is a bottom plan view of an upper 23 generally similar to that shown in Figure 351, but including openings 72 for accommodating the traction members 115 of the anterior outsole element 44 which extend upwards about the medial side 35, lateral side, and a portion of the anterior side 33 similar to that shown in Figures 352 and 353.

Figure 355 shows a lateral side view of an article of footwear 22 including and spring element 51 and closure means including three straps 118 which can be affixed with VELCRO ® hook and pile 140.

Figure 356 shows a lateral side view of an article of footwear 22 including a spring element 51 and closure means including a removable strap 118 including eyestays 139 for accommodating the use of laces. Portions of the strap 118 can pass under the inferior side 38 of the upper 23 and be at least partially mechanically affixed within the grooves or valleys 93 formed between adjacent traction members 115.

Figure 357 shows a lateral side view of an article of footwear 22 including a spring element 51, a backtab pull or strap 118.1, another pull or strap 118.2 located on the superior side 37 of the upper 23, and closure means including a removable strap 118.3 including eyestays 139 for accommodating the use of laces. Alternately, the strap taught in U.S. 5,692,319 granted to Parker et al. and assigned to Nike, Inc. can possibly be used, this patent hereby being incorporated by reference herein. A portion of the strap 118.3 can pass about the posterior side 34 of the upper 23 and there be adjusted and removably affixed with the use of VELCRO ® hook and pile 140, and also under the inferior side 38 of the upper 23 and there be at least partially mechanically affixed within the grooves or valleys 93 formed between adjacent traction members 115 as was shown in Figure 356.

Figure 358 is a top plan view of a pattern for an upper 23 of an article of footwear 22 that is substantially formed in a single part. As shown, the upper 23 includes a textile material 137 and can be cut using an automatic cutting machine such as those made by the Eastman Company of Buffalo, New York. As previously discussed, the upper 23 can also be coated or over-molded with a thermoplastic material 138 to create reinforced areas, and this can be done either before or after the desired pattern is cut. The inferior side 38 of the upper 23 can include openings 72 for the passage of traction members therethrough,

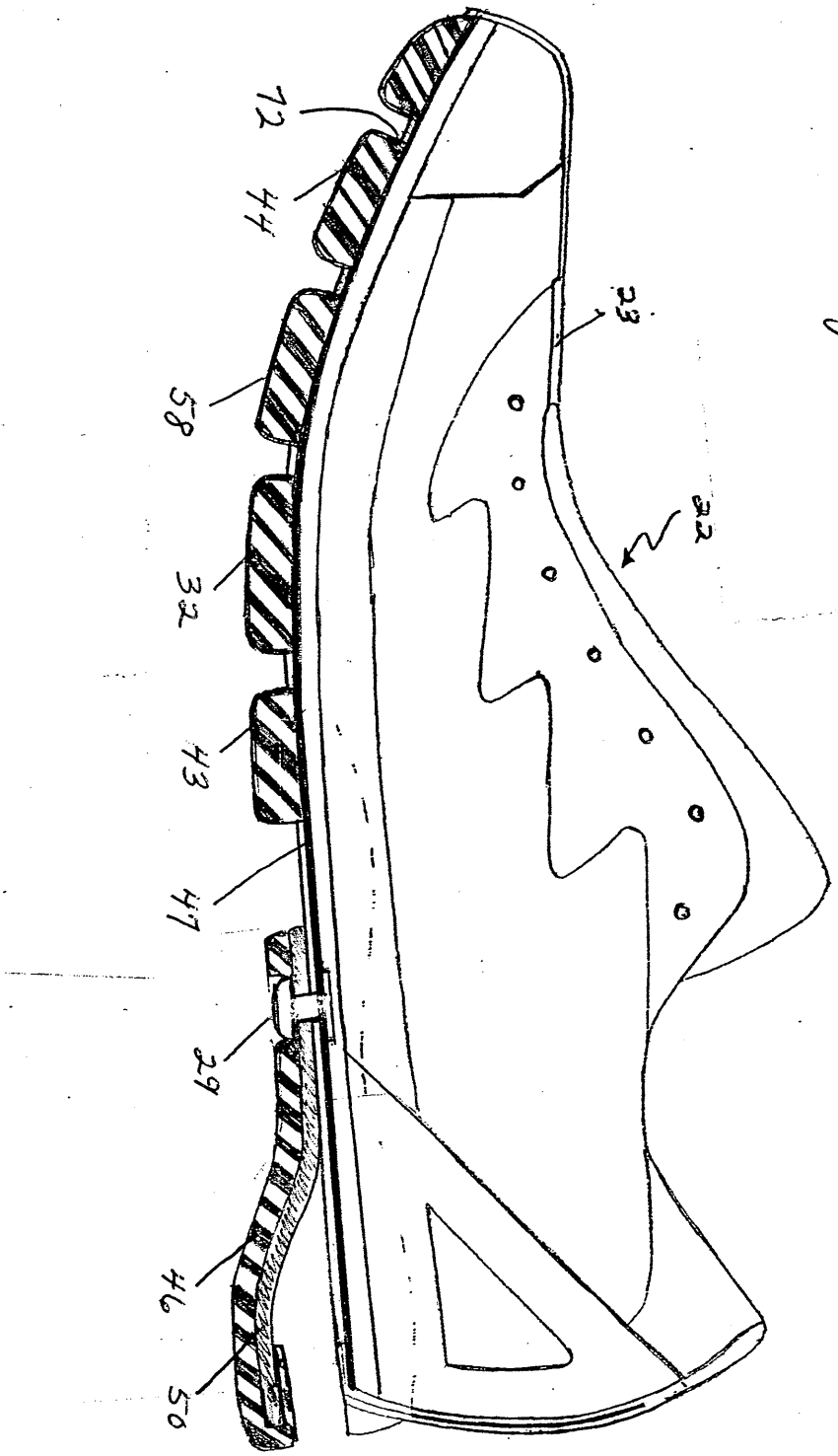


Figure 45

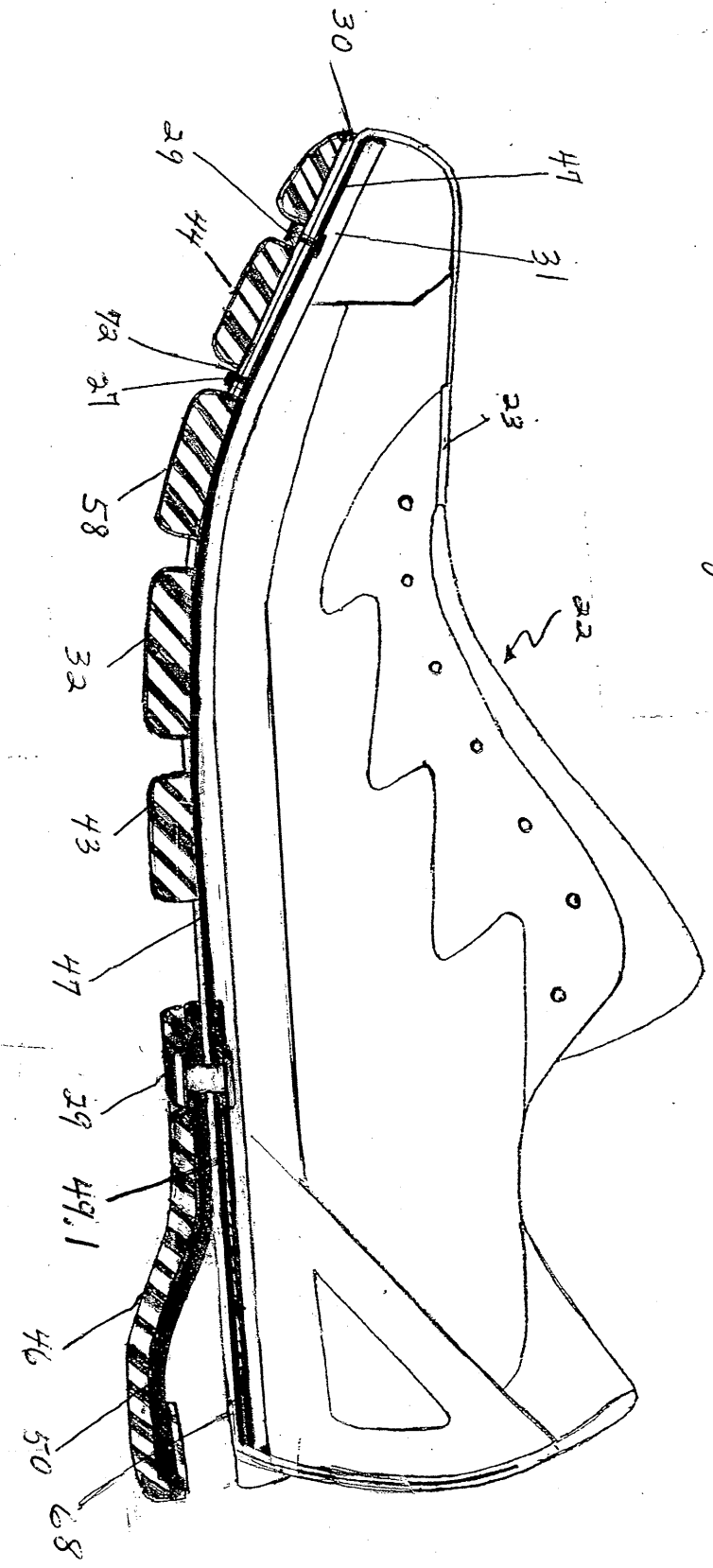


Figure 46

Figure 47

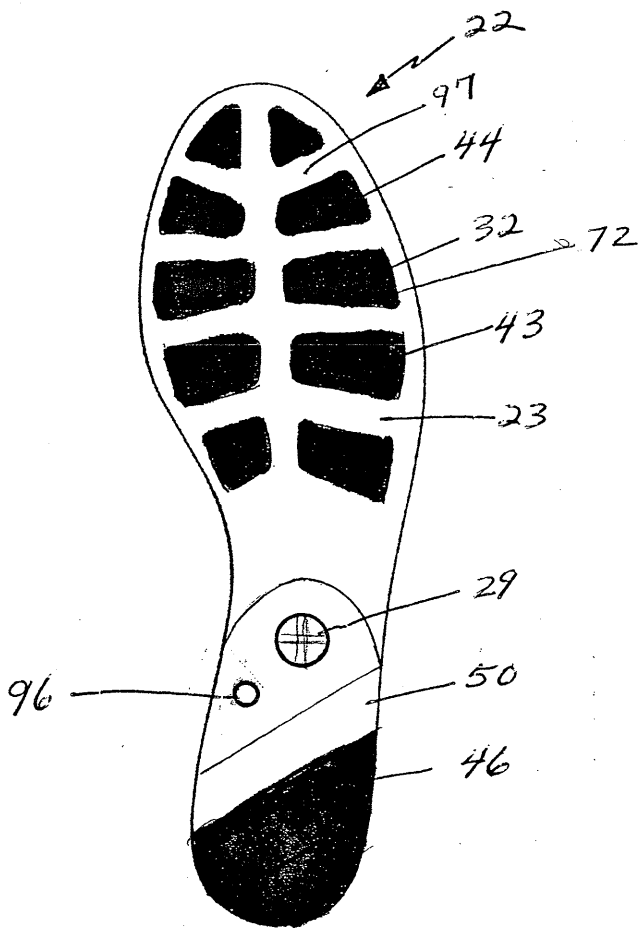
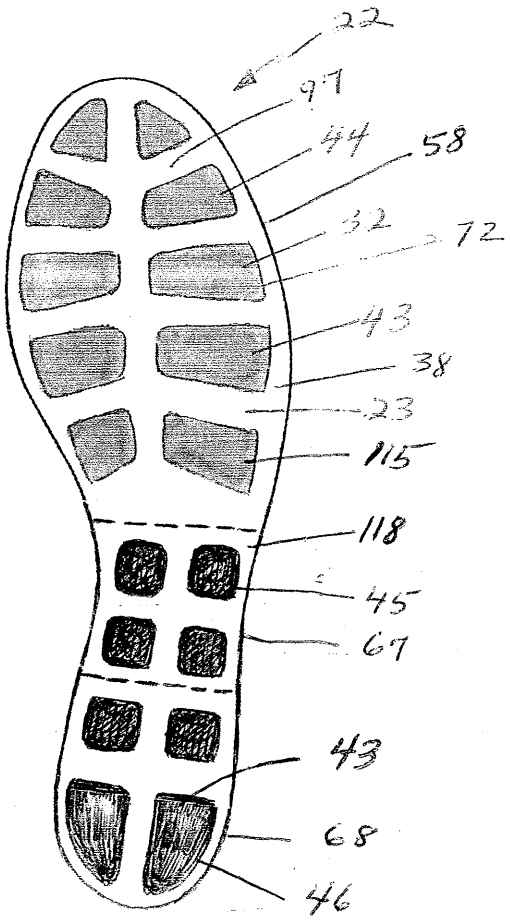


Figure 254



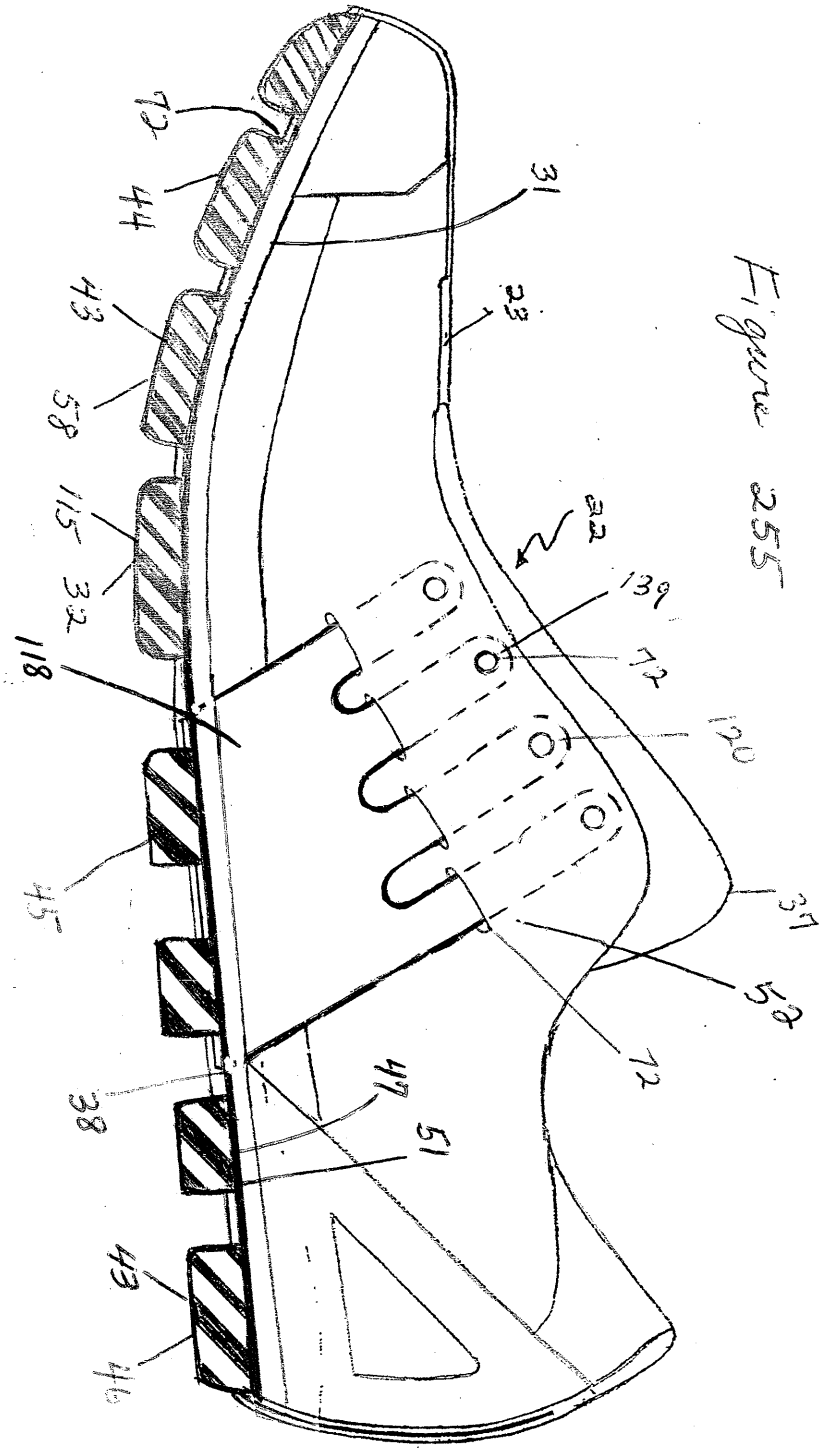


Figure 255

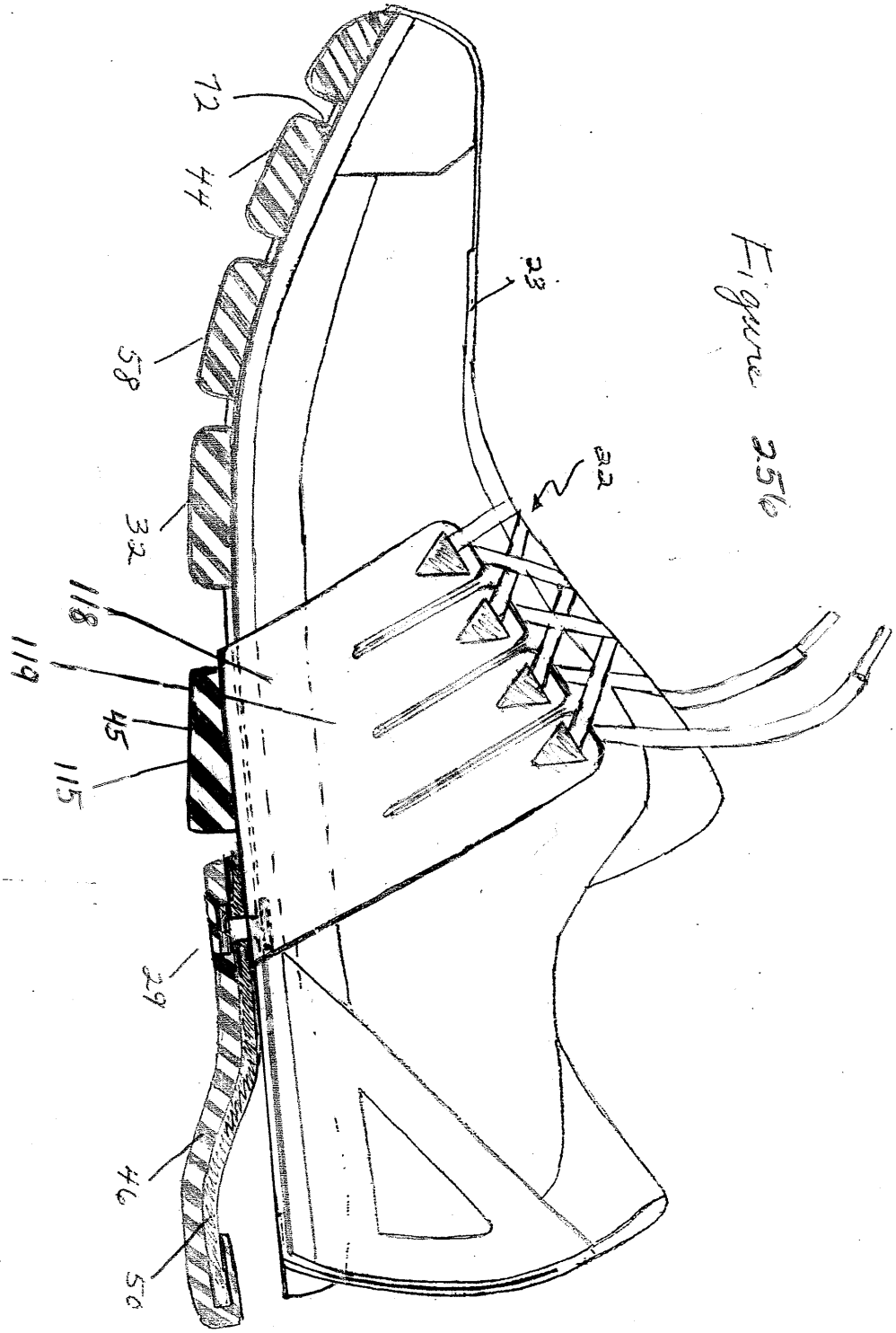
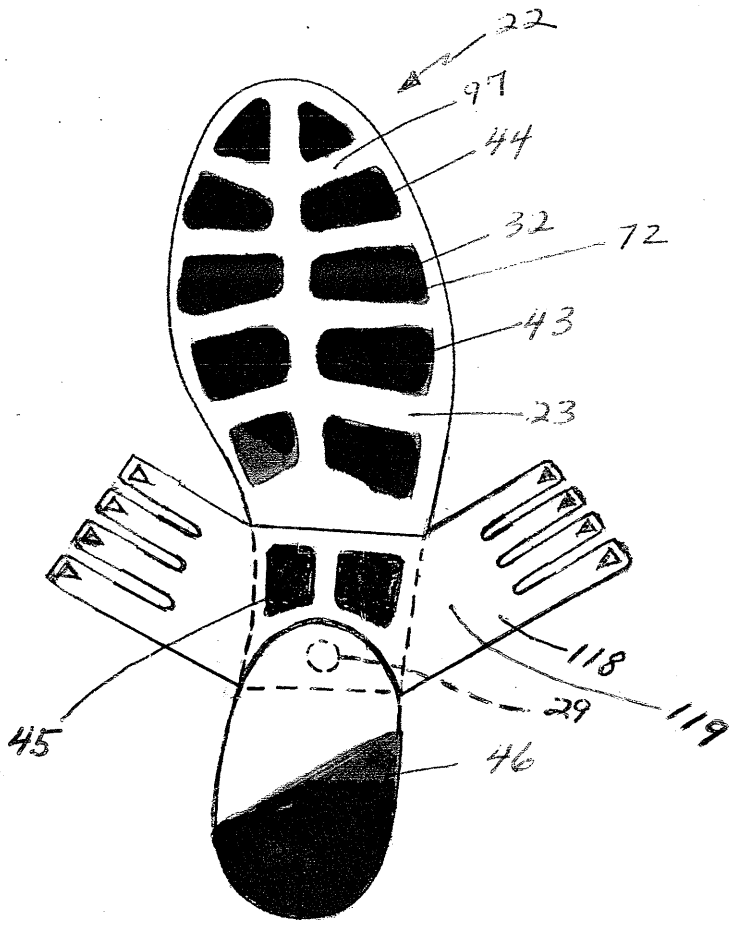


Figure 25b

Figure 257



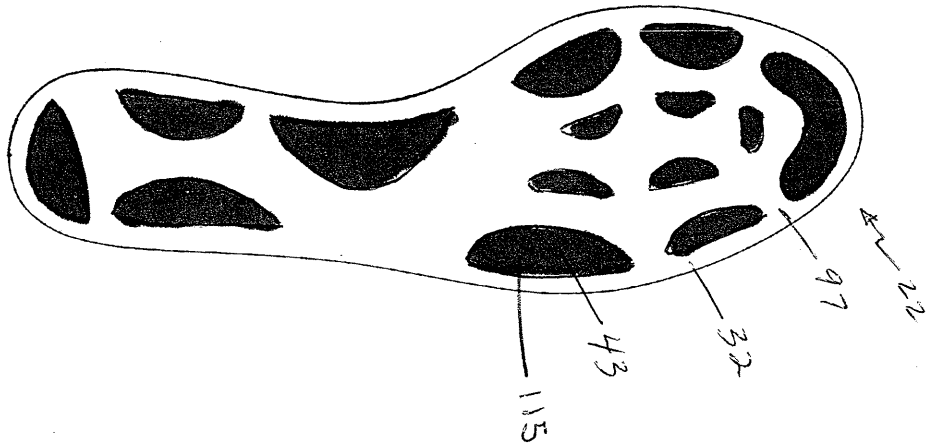


Figure 258

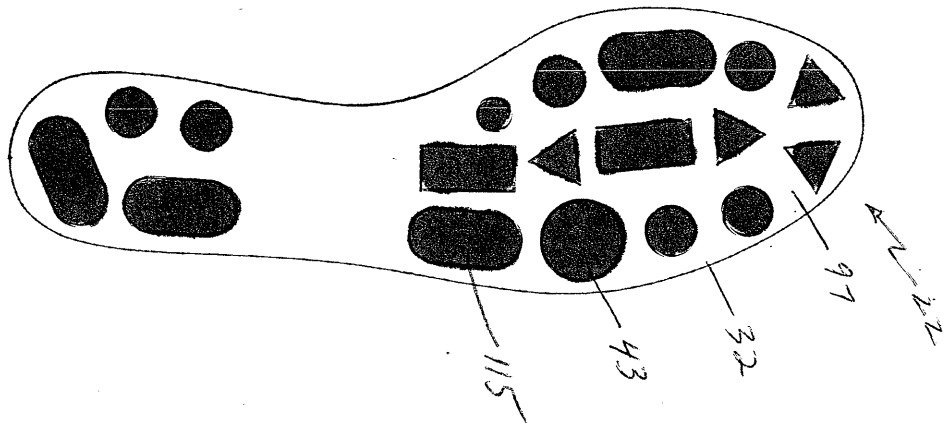


Figure 259

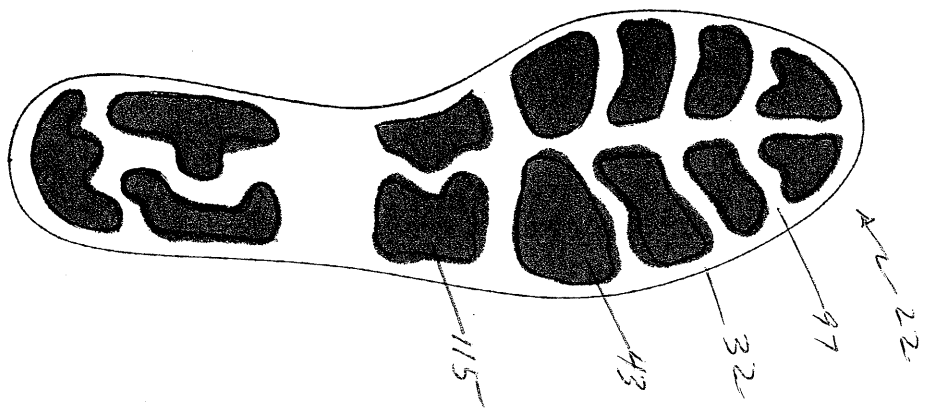


Figure 260

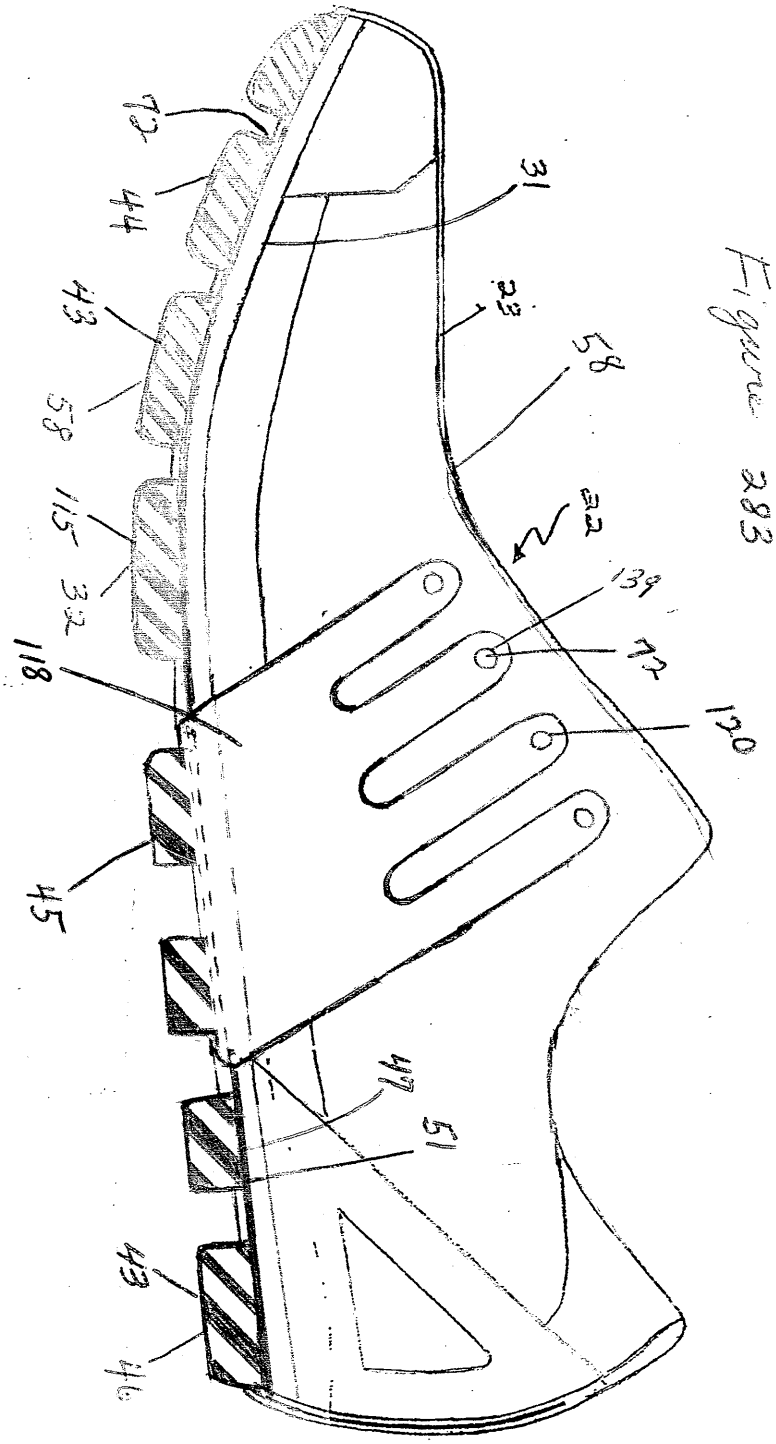


Figure 283

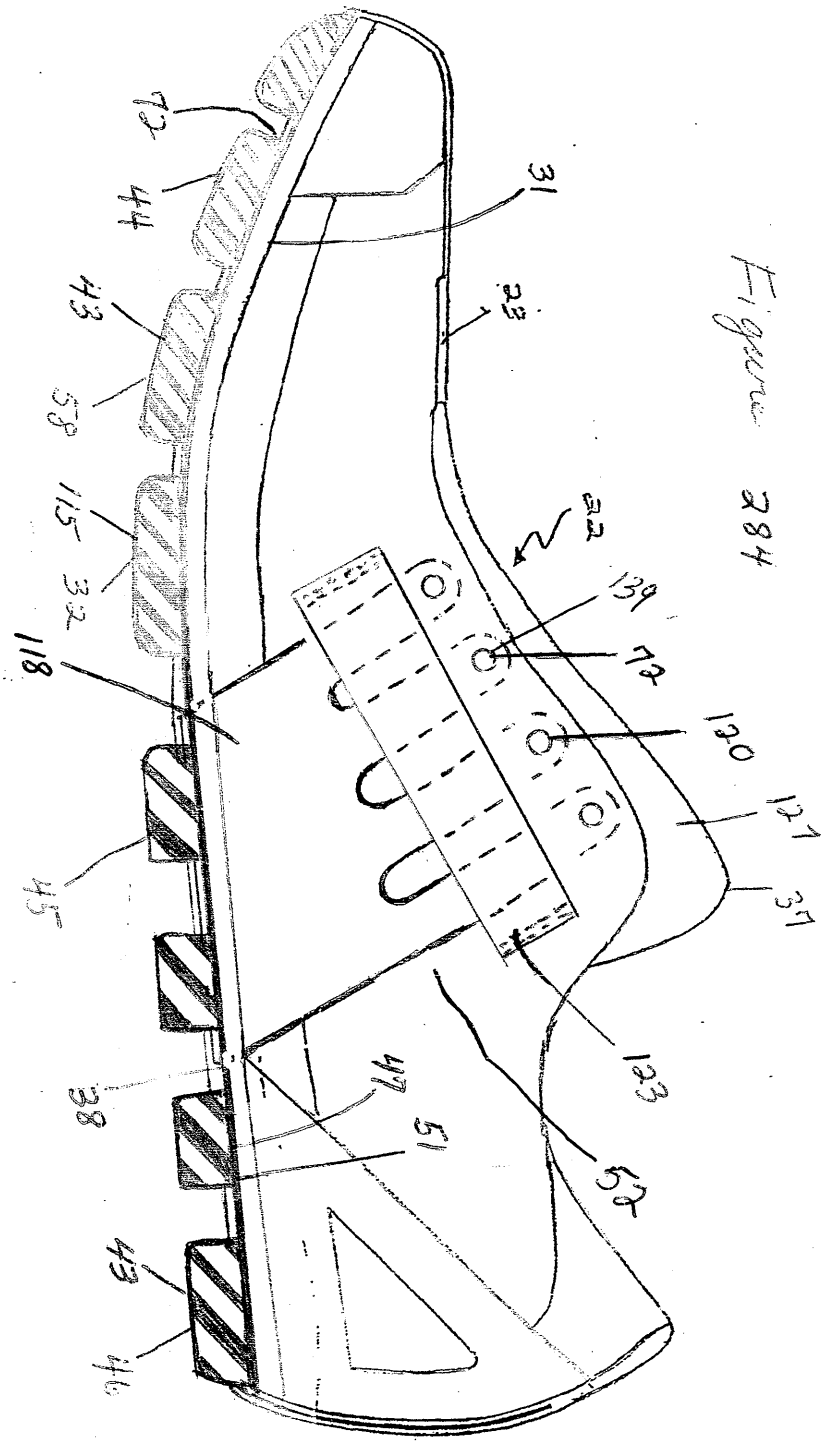
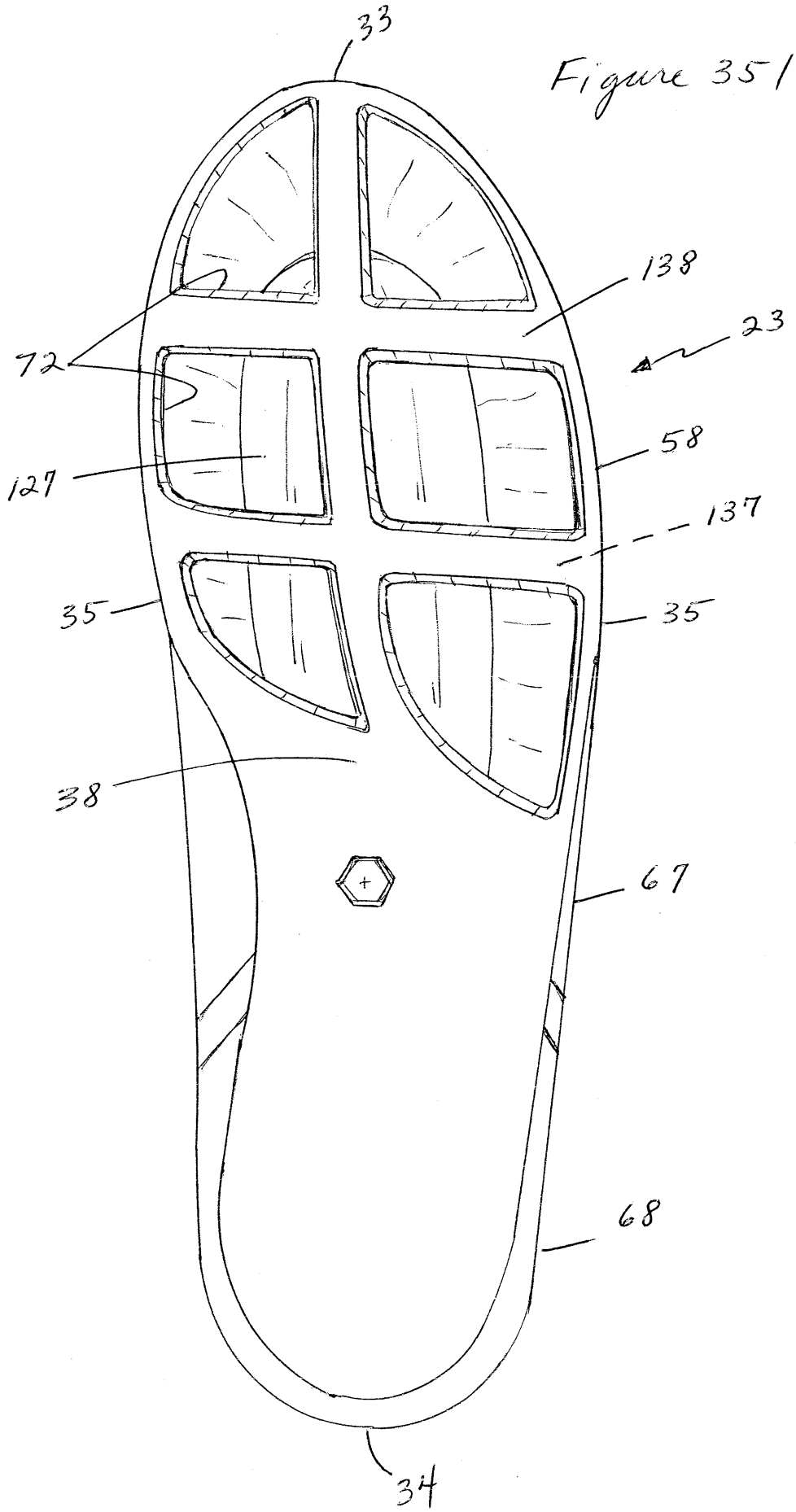


Figure 38A

Figure 35'



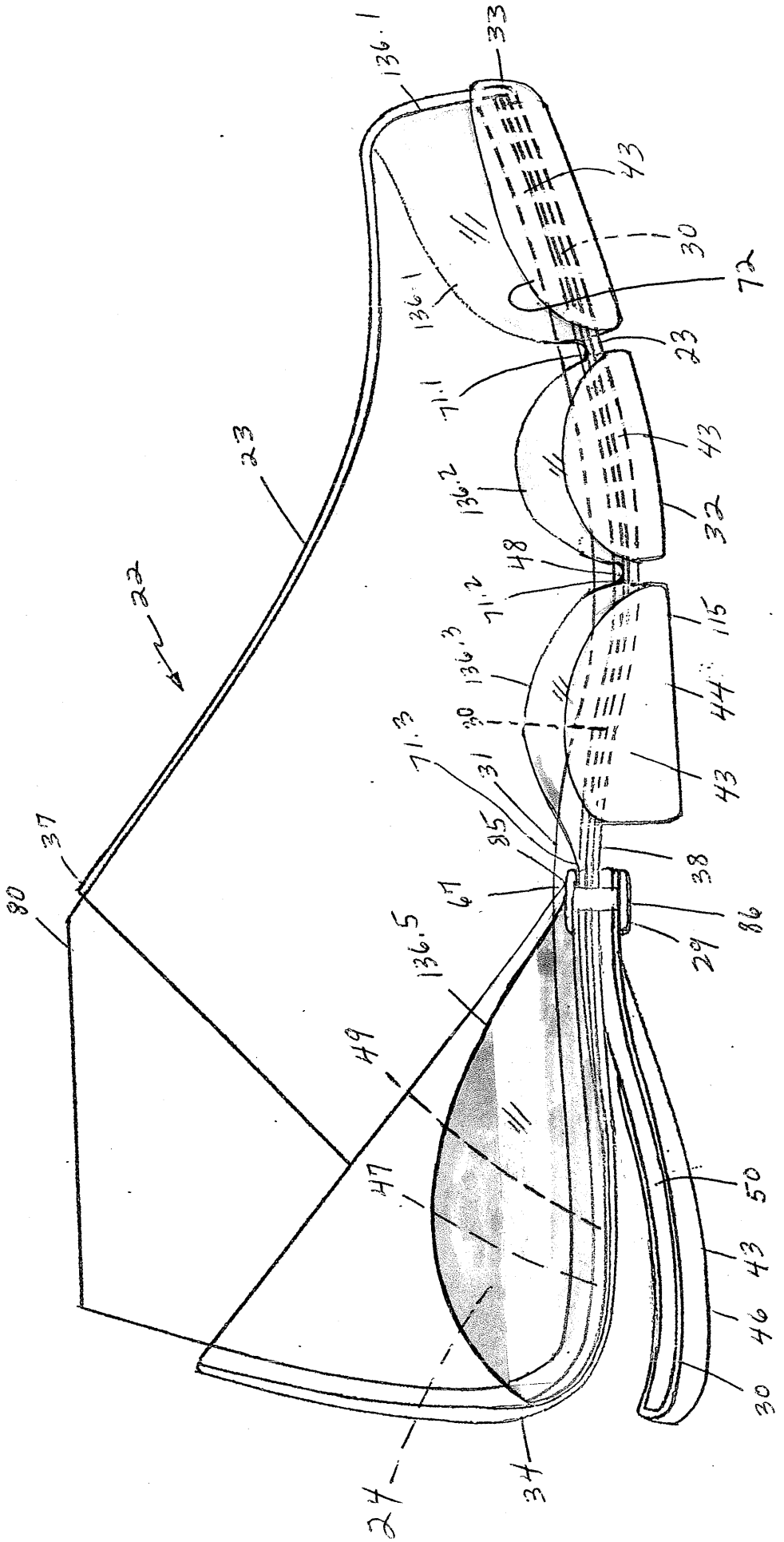
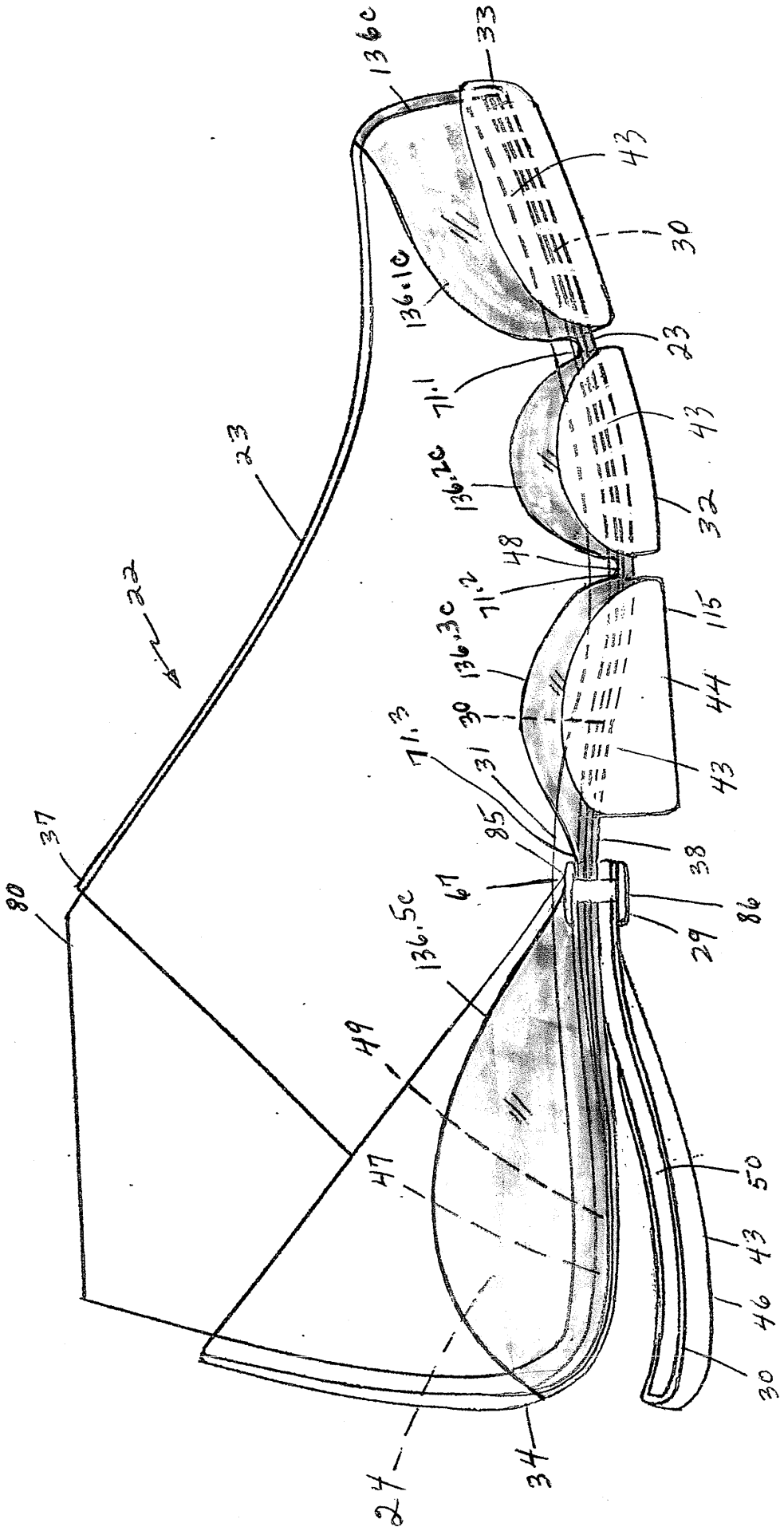

136.1
33
43
30
72
136.1
23
71.1
23
43
136.2
32
48
71.2
115
136.3
30
44
71.3
31
43
85
38
61
86
136.5
29
49
47
50
43
46
30
24
34
22
37
80

Figure 352


136c
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43
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136.1c
23
71.1
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136.2c
32
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71.2
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136.3c
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71.3
31
43
85
38
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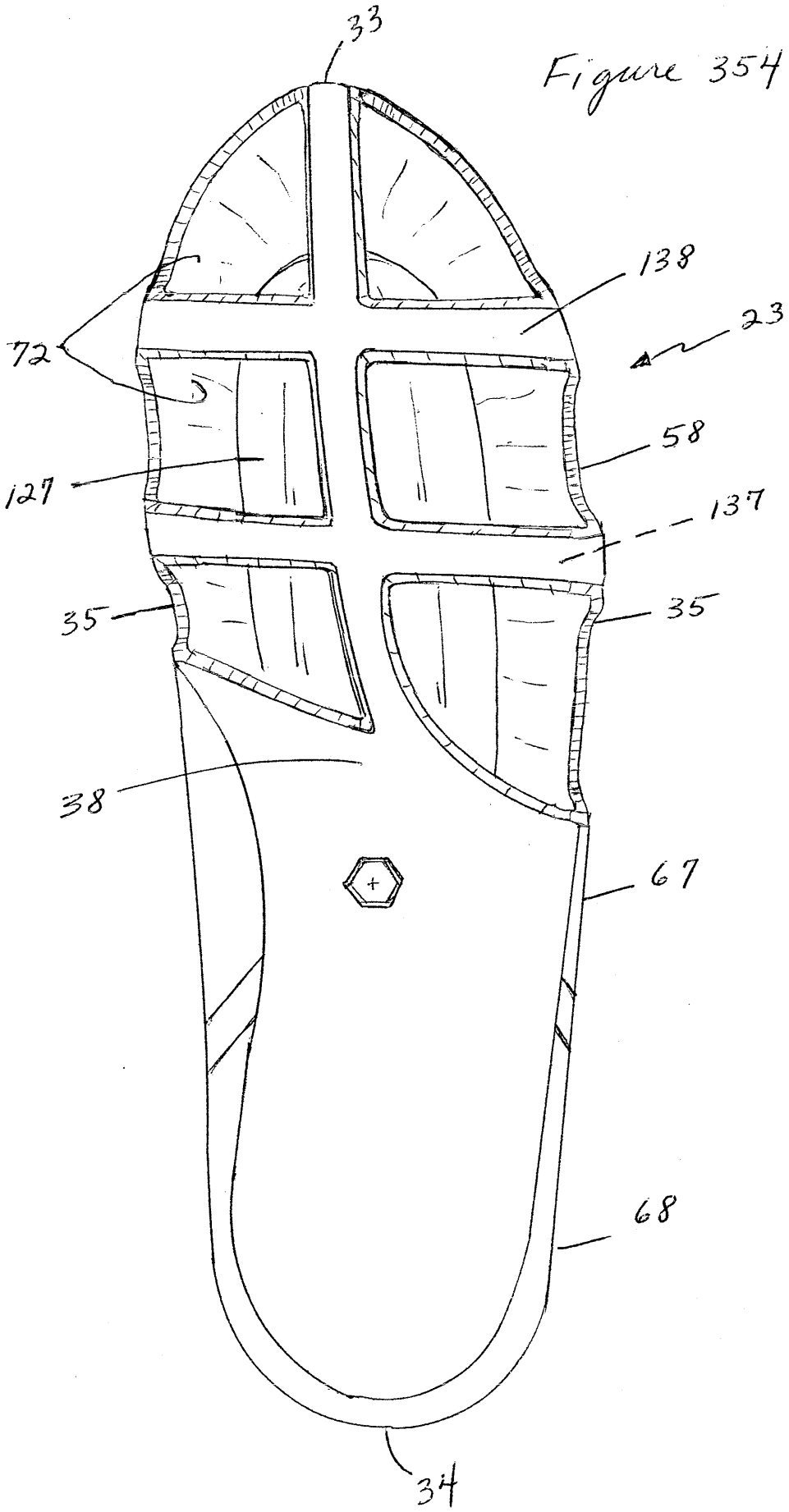
30
24
34
23
22
37
80

Figure 353

Figure 354



U.S. Ser. No. 60/360,784 - Exhibit E
March 1, 2002

Customized Article of Footwear And Method of Conducting Retail and Internet Business

Cross Reference to Related Application

The present Provisional Patent Application entitled "Customized Article of Footwear And Method of Conducting Retail and Internet Business," is a Continuation-In-Part of pending Provisional Patent Application Serial Number _____, filed by the present inventor on December 29, 2001, which was a Continuation-In-Part of pending Provisional Patent Application Serial Number 60/292,644, filed by the present inventor on May 21, 2001, which was a Continuation-In-Part of pending U.S. Patent Application Serial Number 09/573,121, filed by the present inventor on May 17, 2000, which was entitled "Customized Article of Footwear and Method of Conducting Retail and Internet Business," which was a Continuation-In-Part of Serial Number 09/523,341, filed by the present inventor on March 10, 2000, which was entitled "Article of Footwear Having a Spring Element and Selectively Removable Components."

Field of the Invention

The present invention teaches an article of footwear including means for adjusting the length, width, girth, and foot shape. Further, the present invention teaches a customized article of footwear including a spring element, and selectively removable and replaceable components. Moreover, the present invention teaches a novel method of manufacturing articles of footwear, and also, a novel way of doing both retail and Internet business.

Background of the Invention

The article of footwear taught in the present invention includes a spring element which can provide improved cushioning, stability, and running economy. Unlike the conventional foam materials presently being used by the footwear industry, a preferred spring element is not substantially subject to compression set degradation and can provide a relatively long service life. The components of the article of footwear including the upper, insole, spring element, and sole can be selected from a range of options, and can be easily removed and replaced, as desired. Further, the relative configuration and functional

h) Selecting an upper, sole, and spring element which can be removably affixed together in functional relation to provide the foot length, last bottom configuration or foot shape, foot width, and girth dimensions at the plurality of positions;
i) Removably affixing the upper, sole, and spring element in functional relation with the use of mechanical engagement means, and completing the manufacture of the article of footwear; and,
j) Causing the article of footwear to be made available or delivered to a designated address.

Figure 45 is a medial cross-sectional side view of an alternate article of footwear 22 having outsole 43 portions affixed directly to the superior spring element 47 in the forefoot area 58 and / or midfoot area 67. Again, the superior spring element 47 can be made of a fiber composite material such as carbon fiber composite or a metal material such as titanium. The outsole 43 portions in the forefoot area 58 and also the midfoot area 67 can be affixed directly to the superior spring element 47 by conventional adhesives, and alternately, by self-adhesive means, or mechanical means. As shown in Figure 47, the upper 23 includes a plurality of openings 72 for accommodating the outsole 43 portions, thus when the superior spring element 47 including the outsole 43 portions is inserted into the upper 23 the outsole 43 portions pass through the plurality of openings 72 as the superior spring element 47 is placed into proper position. An insole 31 can then be inserted into the upper 23, and the article of footwear 22 can then be donned by a wearer. Alternately, the insole 31 can also be affixed to the superior spring element 47 and inserted into the upper 23 as a single unit. Further, a portion of the anterior side 33 of the superior spring element 47 can be inserted into a sleeve 39 of the upper 23 and thereby be retained in position, as discussed and shown in connection with Figure 15. Moreover, a part including backing 30, or alternately, an anterior spring element 48.1 including a portion of the outsole 43 can be used near the anterior side 33 of the forefoot area 58, and be affixed with the use of mechanical engagement means including male and female parts, e.g., at least one hook 27 and opening 72, and / or a fastener 29, as shown in Figure 46. The inferior portion of the upper 23 can be made of a strong and long wearing textile material such as KEVLAR ®, and in particular, a NYLCO ® ballistic multi-ply fabric such as "N-915W" having a protective polyurethane face coating distributed by Worthen Industries, Inc., of 3 East Spit Brook Road, Nashua New Hampshire, and 530 Main Street, Clinton, Massachusetts. These fabric materials can be die cut, laser cut, or cut using other conventional means.

Figure 46 is a medial cross-sectional side view of an alternate article of footwear 22 having outsole portions 43 affixed directly to the superior spring element 47 in the

forefoot area 58, and further including a supplemental posterior spring element 49.1 in the rearfoot area 68. The addition of a supplemental posterior spring element 49.1 which can be selected from a range of alternate posterior spring elements 49.1 having different thickness or shapes enables the stiffness and mechanical properties of the superior spring element 47 in the rearfoot area 68 to be easily changed and customized. The possible greater relative thickness of the superior spring element 47 in combination with the supplemental posterior spring element 49.1 can be accommodated by stock-fitting it in the inferior portion of the insole 31, and by engineering the approximate thickness into the desired forefoot versus heel elevation differential. Also shown in Figure 46 is the use of a part including backing 30, or alternately, an anterior spring element 48.1 including a portion of the outsole 43 near the anterior side 33 of the forefoot area 58. When affixed in position the backing 30, or alternately, an anterior spring element 48.1 thereby traps a portion of the upper 23 between the backing 30 or anterior spring element 48.1 and superior spring element 47. The backing 30, or alternately, an anterior spring element 48.1 can be affixed with the use of mechanical engagement means including male and female parts, e.g., at least one hook 27 and opening 72, and / or a fastener 29, as shown in Figure 46. The fasteners 29 can be visible from the bottom side as shown in the forefoot area 58, or alternately not be visible, as shown in the rearfoot area 68 in Figure 46.

Figure 47 is a bottom view of the alternate article of footwear 22 shown in Figure 45 having outsole 43 portions affixed directly to the superior spring element 47 in the forefoot area 58 and midfoot area 67. As shown in Figure 47, the outsole 43 portions pass through openings 72 in the inferior side 38 of the upper 23. The portions of the upper 23 about the openings 72 can form relatively narrow links or bridges 97 connecting the opposing sides of the upper 23, thus still substantially maintain the shape, and integrity of upper 23. A wide variety of structures and patterns can be used regarding the bridges 97 formed on the inferior side 38 of the upper 23. Shown in the rearfoot area 68 is inferior spring element 50 including posterior outsole element 46, a single fastener 29, and a locating pin 96. The locating pin 96 can be affixed to the inferior spring element 50, or alternately to the superior spring element 47 or posterior spring element 49 and be configured for passing through corresponding mating openings 72 in the various sub-components of the spring element 51. Further, the fastener 29 can be a loose part, or alternately can be affixed to one of the various sub-components of the spring element 51. Moreover, as shown in Figure 101, the fastener 29 and / or locating pin 96 can have a round transverse cross-section, but at least one of these components preferably has a more complex geometric shape when viewed in a transverse cross-section, such as square, rectangle, pentagon, octagon, or star shape. Accordingly, the insertion of the fastener 29

and / or locating pin 96 can serve to lock the various sub-components of the spring element 50 into a specific geometric orientation so that they cannot be caused to shift or freely rotate about the axis of the fastener 29 and / or locating pin 96 when the sub-components are properly affixed in place.

Figure 48 is a medial cross-sectional side view of an alternate article of footwear 22 having outsole 43 portions affixed directly to an anterior spring element 48.1 in the forefoot area 58. Like the embodiment shown in Figure 16, the superior spring element 47 is affixed to the anterior spring element 48.1 by fasteners 29 thereby trapping and firmly securing an inferior portion of the upper 23 therebetween. However, the use of a single fastener 29 for securing the inferior spring element 50 and numerous gaps 98 between portions of the anterior outsole element 44 are shown in Figure 48.

Figure 49 is a medial cross-sectional side view of an alternate article of footwear 22 having outsole 43 portions affixed directly to an anterior spring element 48.2 in the forefoot area 58 which is affixed to an anterior spacer 55.2 and the superior spring element 47. Again, the shape and thickness of an anterior spacer 55.2 in various locations can be varied so as to create a sloped shape, or other complex shapes along the longitudinal axis 69 or transverse axis 91 of the article of footwear 22. This can determine the relative position of the fulcrum created by the anterior spacer 55.2, but also the angular inclination, magnitude of deflection, and exhibited stiffness of the anterior spring element 48.2. As shown in Figure 235, the inferior spring element 50 has a flexural axis 59 which is generally transverse to the longitudinal axis 69. Alternately, an inferior spring element 50 having a flexural axis 59 that is diagonal with respect to the longitudinal axis 69 could be used. In addition, as shown in Figure 100, a midsole element 26 including a fluid-filled bladder can be employed in the space between the anterior spring element 48.2 and the inferior portion of the upper 23. When a gas-filled bladder is used, the gas contained within the bladder can be at ambient atmospheric pressure, or alternately, be pressurized above atmospheric pressure.

Figure 50 is an exploded side view of a spring element 51 including a superior spring element 47 having an anterior spring element 48 and a posterior spring element 49, superior posterior spacer 42.1, and inferior posterior spacer 42.2, a fastener 29 including male and female portions, and an inferior spring element 50. The spacers 42.1 and 42.2 can be made in varying thickness and configurations and can be used to change the geometry and configuration of a spring element 51, as desired. Further, the spacers 42.1 and 42.2 can include gripping surfaces for firmly locking the components of a spring element 51 in position when affixed by a fastener 29. Also shown is a fastener 29 affixed in position on the anterior spring element 48 and projecting beyond the inferior surface

inferior spring element 50 is located in the rearfoot area 68, and includes a notch 71 on the lateral side 36 in the midfoot area 67, and is integral with an anterior spring element 48.3 located in the forefoot area 58.

Figure 249 is a longitudinal cross-sectional lateral side view of the embodiment shown in Figure 248 showing an article of footwear 22 including a spring element 51 including a superior spring element 47, and an inferior spring element 50. The inferior spring element 50 is located in the rearfoot area 68 and is integral with an anterior spring element 48.3 that is located in the forefoot area 58.

Figure 250 is a flow diagram regarding a method of making an article of footwear.

Figure 251 is a flow diagram having greater detail regarding a method of making an article of footwear.

Figure 252 is a flow diagram regarding a method of making an article of footwear and way of doing business.

Figure 253 is a flow diagram having greater detail regarding a method of making an article of footwear and way of doing business.

Addition to the Specification Regarding the Detailed Discussion of the Invention

Figure 254 is a bottom view of an article of footwear 22 showing a plurality of traction members 115 associated with the sole 32 and outsole 43 extending through a plurality of openings 72 positioned between bridges 97 present in the inferior side 38 of the upper 23. The traction members 115 can be permanently or selectively and removably affixed to a lasting board 79 or spring element 51. The traction members 115 can extend through a plurality of openings in the forefoot area 58, midfoot area 67, rearfoot area 68, and partial or complete combinations thereof. Also shown by dashed lines is the approximate position of a strap 118 for the upper 23 including closure means 120 such as openings 72 and eyestays 139 for the passage of laces 121, or other mechanical engagement means such as VELCRO ® hook and pile.

Figure 255 is an internal longitudinal cross-sectional lateral side view of the article of footwear 22 shown in Figure 254 showing a spring element 51 including traction members 115 extending through openings 72 in the upper 23, and a removable strap 118 which is substantially positioned inside the upper 23. The strap 118 can include openings for the passage of traction members 115 therethrough, or alternately, can include traction members which can be caused to pass through openings in the inferior side 38 of the upper 23. The strap 118 also includes closure means 120 such a openings 72 and eyestays 139 for receiving laces 121, or other mechanical engagement means such as VELCRO ® hook and pile. As shown, portions of the strap 118 can extend through one or more openings 72 in the side or vamp 52 of the upper 23. As shown, the upper 23 includes a

conventional U or V shaped opening on the superior side 37. However, as shown in Figure 283, the upper 23 could alternately be substantially closed on the superior side 37 in the manner of the so-called "Huarache style" shoe upper as commercialized by Nike, Inc., e.g., in the HUARACHE ®, MOWABB ®, and more recently, the PRESTO ®. Alternately, as shown in Figure 284, portions of the strap 118 can remain substantially within the upper 23, but can be exposed or otherwise accessible on the superior side 37 of the upper 23. The strap 118 can possibly be at least partially maintained in position relative to the upper 23 using a retainer 123.

Figure 256 is a medial side view of an article of footwear 22 with parts broken away showing a spring element 51 including traction members 115 extending through openings 72 in the upper 23, and a removable strap 118 or quarter(s) 119 substantially positioned outside of the upper 23. The removable strap 118 or quarter(s) 119 includes closure means 120 such as openings 72 and eyestays 139 for the passage of laces 121, or other mechanical engagement means such as VELCRO ® hook and pile, and can be affixed in position by at least one fastener 29 which can also possibly be used to simultaneously affix the inferior spring element 50 to the superior spring element 47. The removable strap 118 or quarter(s) 119 can also include at least one traction member 115 and portion of the sole 32 or outsole 43. When the removable strap 118 or quarter(s) 119 is made from a thermoplastic or thermoset material a portion of the sole 32 or outsole 43 can be easily directed bonded or adhered thereto.

Figure 257 is a bottom view of the article of footwear 22 shown in Figure 256 showing a plurality of traction members 115 extending through openings 72 in the upper 23, and a removable strap 118 or quarters 119 which is substantially positioned outside the upper 23. As shown, the strap 118 or quarters 119 can include at least one middle outsole element 45, and closure means 120 such as openings 72 and eyestays 139 for the passage of laces 121, or other mechanical engagement means such as VELCRO ® hook and pile. The strap 118 or quarters 119 can be affixed in position by at least one fastener 29 which can also possibly be used to simultaneously affix the inferior spring element 50 to the superior spring element 47.

Figure 258 is a bottom view of an article of footwear 22 showing a plurality of traction members 115 extending through openings 72 in the upper 23 in a configuration or pattern which differs from that shown in Figure 254. Many other configurations are possible.

Figure 259 is a bottom view of an article of footwear 22 showing a plurality of traction members 115 extending through openings 72 in the upper 23 in a configuration or

pattern which differs from that shown in Figure 254. Many other configurations are possible.

Figure 260 is a bottom view of an article of footwear 22 showing a plurality of traction members 115 extending through openings 72 in the upper 23 in a configuration or pattern which differs from that shown in Figure 254. Many other configurations are possible.

Figure 261 is a side exploded view of an article of footwear 22 showing a plurality of components including an insole 31, superior spring element 47, fastener 29, anterior outsole element 44, upper 23, strap 118 including closure means and at least one traction member 115, inferior spring element 50, and posterior outsole element 46. Instead, or in addition to a strap 118, it can be readily understood that a more conventional upper 23 could be used including a plurality of openings 72 and eyestays 139 for accommodating laces 121. Further, a strap 118 does not necessarily have to include a traction element 115. A traction element 115 or middle outsole element 45 can be formed as a separate and selectively removable part. The anterior outsole element 44 and posterior outsole element 46 can be affixed to the spring element 51, and particular portions of sub-components thereof, by chemical bonding, vulcanization, adhesive, self-adhesive, and also by mechanical engagement means including male parts 85 and female parts 86 such as snap-fit, tongue and groove, hook 27, fastener 29, hook and pile, and the like.

Figure 262 is a bottom view of an anterior outsole element 44 including an outsole 43 having traction members 115 which are affixed in functional relation to a backing 30. The backing 30 extends between adjacent traction members 115, but is minimized therebetween by the inclusion of openings 72, thereby saving both weight and manufacturing cost.

Figure 263 is a bottom view of an anterior outsole element 44 including an outsole having traction members 115 which are affixed in functional relation to a backing 30. The backing 30 extends between adjacent traction members 115 and substantially underlies the forefoot area 58. The backing 30 can consist of a thin web 114 of the same material which is used to make the traction members 115, or a different formulation of the same material, or alternately, a completely different material composition. The presence of a backing 30 or web 114 can enable the anterior outsole element 44 to be inserted in position within the upper 23 causing the traction members 115 to extend through openings 72 in the inferior side 38 of the upper 23, e.g., as shown in Figure 254. The thin web 114 or backing 30 can then serve to maintain the registered orientation of the traction members 115, and also serve as a stop thereby preventing the individual traction members 115 and anterior outsole element 44 from passing completely through the upper 23. The anterior

as a stop against the inferior side 38 of the spring element 51 when the male part 85 and female part 86 are affixed in functional relation, whereas the lower flange 124 can be used to engage a complimentary female part possibly associated with the upper 23, backing 30, or a portion of the sole 32.

Figure 282 is a side cross-sectional view of a spring element 51 and a fastener 29 including a male part 85 including an upper and lower flange 124, and a female part 86. The female part 86 fits into recess on the superior side 37 of the spring element 51 and can be positioned into an opening 72 therein, and the male part 85 can then be affixed to the female part 86 from the inferior side 38 of the spring element 51. The upper flange 124 on the male part 85 serves as a stop against the inferior side 38 of the spring element 51 when the male part 85 and female part 86 are affixed in functional relation, whereas the lower flange 124 on the male part 85 can be used to engage a complimentary female part possibly associated with the upper 23, backing 30, or a portion of the sole 32.

Figure 283 is a medial side external view of an article of footwear 22 with parts broken away showing the use of a selectively removable strap 118, a spring element 51 having outsole 43 traction members 115 affixed thereto, and an upper 23 that is substantially closed on the superior side 37 in the manner of the so-called "Huarache style" shoe upper as commercialized by Nike, Inc., e.g., in the HUARACHE ®, MOWABB ®, and more recently, the PRESTO ®, that is, the upper 23 does not include a conventional U or V shaped opening on the superior side 37 in the forefoot area 58.

Figure 284 is an internal longitudinal cross-sectional lateral side view of an article of footwear 22 showing a spring element 51 including traction members 115 extending through openings 72 in the upper 23, and a removable strap 118 which is substantially positioned inside the upper 23. The superior portions of the strap 118 are exposed, or otherwise accessible to a wearer on the superior side 37 of the upper 23. The strap 118 can include openings for the passage of traction members 115 therethrough, or alternately, can include traction members which can be caused to pass through openings in the inferior side 38 of the upper 23. The strap 118 also includes closure means 120 such a openings 72 and eyestays 139 for receiving laces 121, or other mechanical engagement means such as VELCRO ® hook and pile. As shown, portions of the strap 118 can extend through one or more retainers 123 which are affixed in functional relation to the inside of the vamp 52 of the upper 23.

Figure 285 is an exploded medial side view of an article of footwear 22 which is somewhat similar to that shown in Figure 261 showing a plurality of components including an insole 31, superior spring element 47, a fastener 29 including a male part 85 and female part 86, anterior outsole element 44, middle outsole element 45, upper 23, inferior spring

to facilitate entry and exit of a wearer's foot. Moreover, it can be readily understood that the upper 23 can include removable quarters including openings 72 for accommodating laces, straps 118, and / or other conventional closure means. The synergistic use of a textile material 137 or an alternate material having substantial elongation or elastic characteristics in combination with a relatively rigid thermoplastic material 138 or an alternate material having substantially less elongation or elastic characteristics in making the upper 23 can be coordinated to create select areas having different known and desired elongation characteristics in order to suitably accommodate or compliment a wearer's anatomical characteristics and biomechanical motions when engaged in activity. See U.S. 5,377,430 granted to Hatfield et al., and assigned to Nike, Inc., this patent being hereby incorporated by reference herein.

Figure 351 is a bottom plan view of an upper 23 generally similar to that shown in Figures 349. Shown are a plurality of openings 72 for accommodating a plurality of traction members 115 associated with an anterior outsole element 44 generally similar to that shown in Figure 318. Also shown is a hexagon shaped opening 72 for accommodating the passage of a fastener 29, the inferior side of the tongue 127, and the presence of a plastic material 138 or alternate wear resistant material on the inferior side 38 of the upper 23.

Figure 352 is a longitudinal cross-sectional lateral side 36 view of an article of footwear 22 generally similar to that shown in Figure 338, but including a number of differences. In this alternate embodiment, the openings 72 in the upper 23 for accommodating the outsole 43 traction members 115 associated with the anterior outsole element 44 extend not only on the inferior side 38, but also upwards about a portion of the medial side 35, lateral side 36, and also a portion of the anterior side 33 of the upper 23. Again, a portion of the backing 30 of the anterior outsole element 44 can extend upwards within the interior of the upper 23 forming stability elements 136.1, 136.2, 136.3, and 136.5, and traction members 115 which are not confined to the inferior side 38 of the upper 23 can extend therefrom. The structure can be advantageous for use in articles of footwear intended for use in activities requiring substantial lateral movement.

Figure 353 is a longitudinal cross-sectional lateral side 36 view of an article of footwear 22 generally similar to that shown in Figure 341, but including a number of differences. In this alternate embodiment, the openings 72 for accommodating the outsole 43 traction members 115 can extend not only on the inferior side 38, but also upwards about a portion of the medial side 35, lateral side 36, and also a portion of the anterior side 33 of the upper 23. Again, stability element 136c can form a plurality of individual stability elements 136.1c, 136.2c, 136.3c, and 136.5c that extend upwards about the

exterior sides of the upper 23, and traction members 115 which are not confined to the inferior side 38 of the upper 23 can extend therethrough. The structure can be advantageous for use in articles of footwear intended for use in activities requiring substantial lateral movement. As shown, the traction members 115 can be affixed to the backing 30 of the anterior outsole element 44 and can emerge through registered openings 72 in the upper 23 and stability element 136c. Alternately, the traction members 115 can be directly affixed to a stability element generally similar to 136c which does not including openings 72. Again, the stability element 136c can be made of a transparent or translucent material as shown, or a thermoplastic material including decorative sublimation printing, and the like. The stability element 136c could have other configurations, and portions could possibly extends upwards to link with closure means such as laces or straps included in the construction of the upper 23.

Figure 354 is a bottom plan view of an upper 23 generally similar to that shown in Figure 351, but including openings 72 for accommodating the traction members 115 of the anterior outsole element 44 which extend upwards about the medial side 35, lateral side, and a portion of the anterior side 33 similar to that shown in Figures 352 and 353.

Figure 355 shows a lateral side view of an article of footwear 22 including a spring element 51 and closure means including three straps 118 which can be affixed with VELCRO ® hook and pile 140.

Figure 356 shows a lateral side view of an article of footwear 22 including a spring element 51 and closure means including a removable strap 118 including eyestays 139 for accommodating the use of laces. Portions of the strap 118 can pass under the inferior side 38 of the upper 23 and be at least partially mechanically affixed within the grooves or valleys 93 formed between adjacent traction members 115.

Figure 357 shows a lateral side view of an article of footwear 22 including a spring element 51, a backtab pull or strap 118.1, another pull or strap 118.2 located on the superior side 37 of the upper 23, and closure means including a removable strap 118.3 including eyestays 139 for accommodating the use of laces. Alternately, the strap taught in U.S. 5,692,319 granted to Parker et al. and assigned to Nike, Inc. can possibly be used, this patent hereby being incorporated by reference herein. A portion of the strap 118.3 can pass about the posterior side 34 of the upper 23 and there be adjusted and removably affixed with the use of VELCRO ® hook and pile 140, and also under the inferior side 38 of the upper 23 and there be at least partially mechanically affixed within the grooves or valleys 93 formed between adjacent traction members 115 as was shown in Figure 356.

Figure 358 is a top plan view of a pattern for an upper 23 of an article of footwear 22 that is substantially formed in a single part. As shown, the upper 23 includes a textile

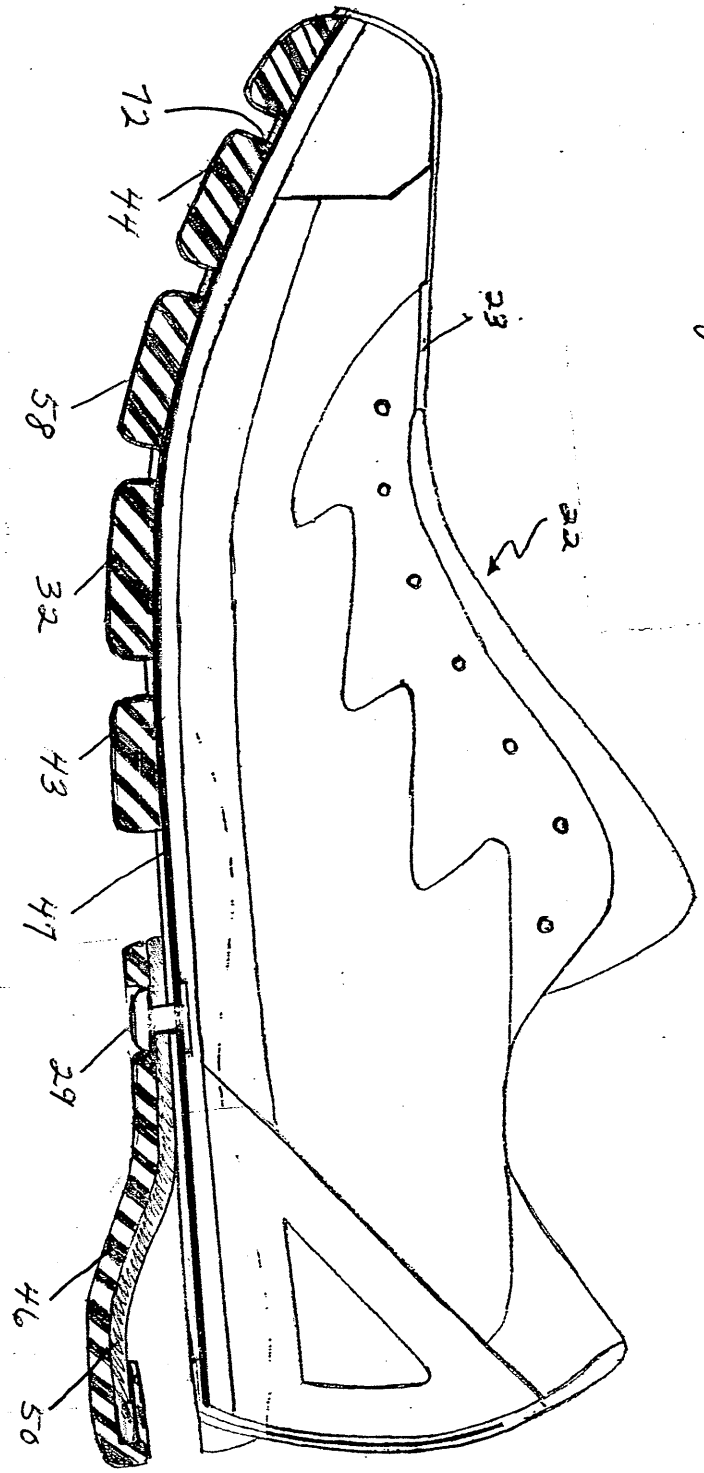


Figure 45

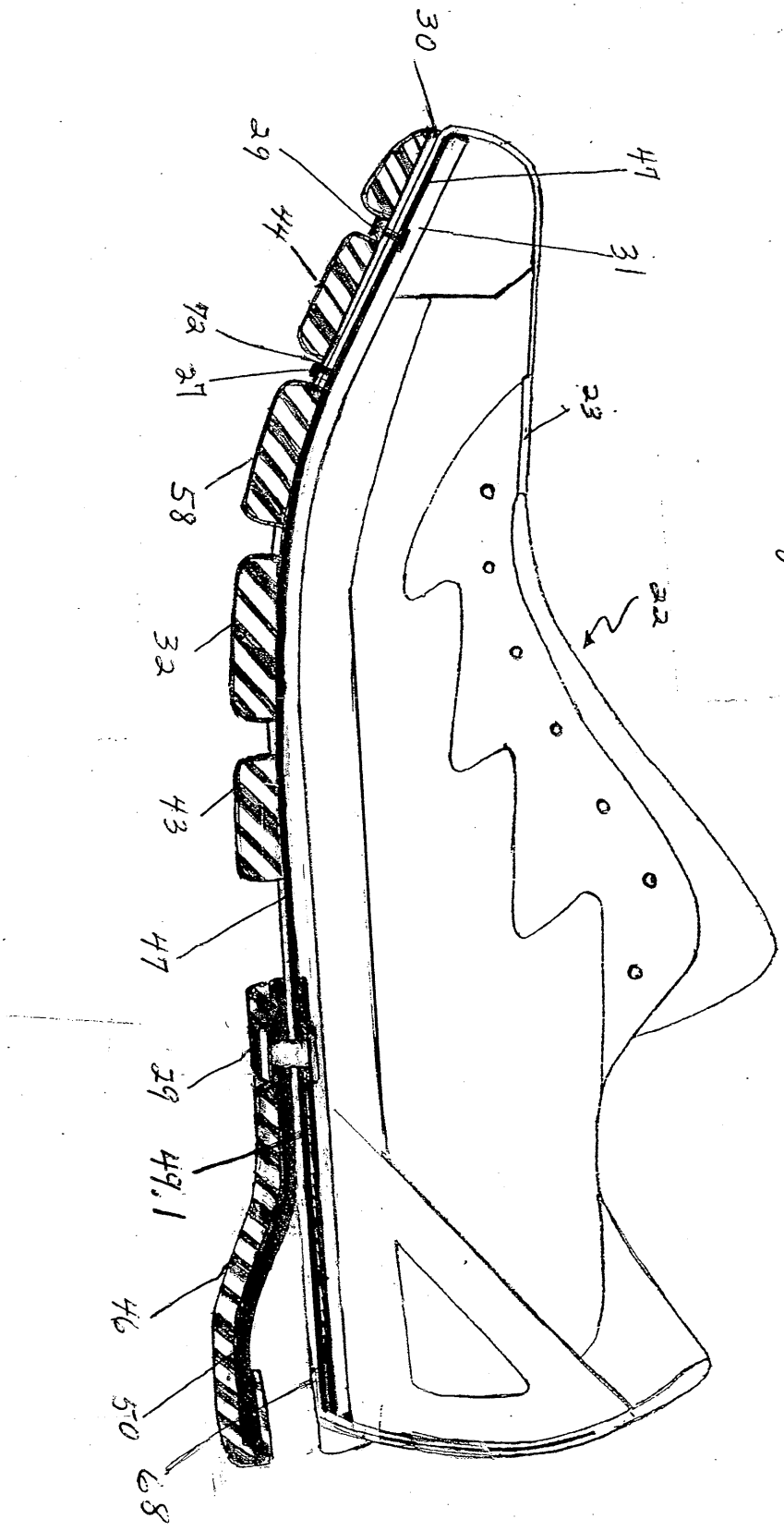


Figure 46

Figure 47

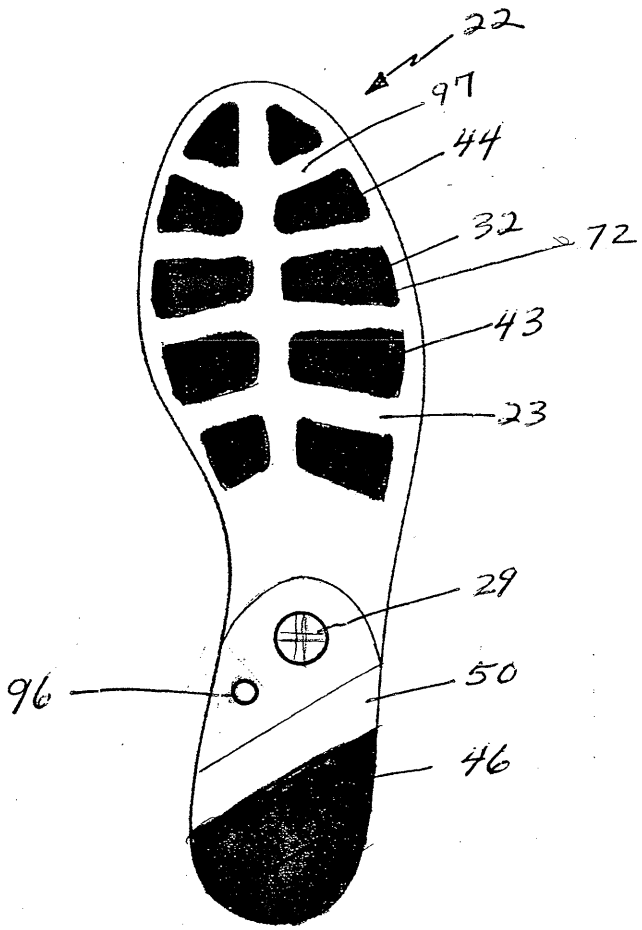
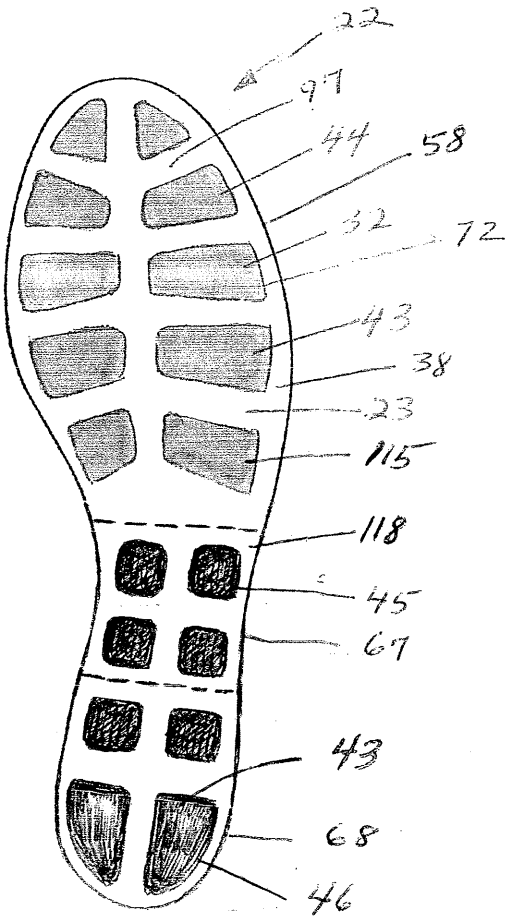


Figure 254



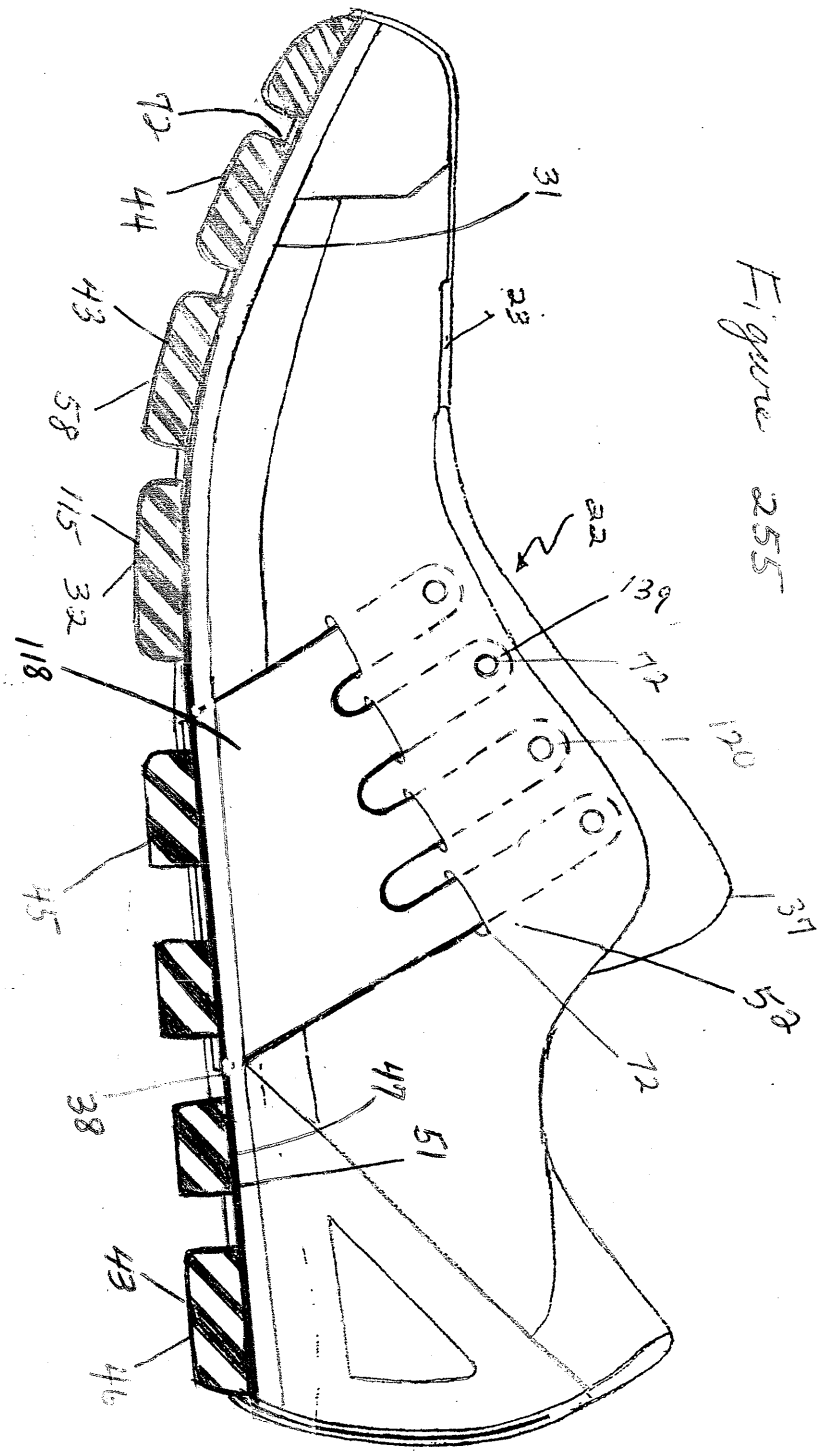


Figure 25S

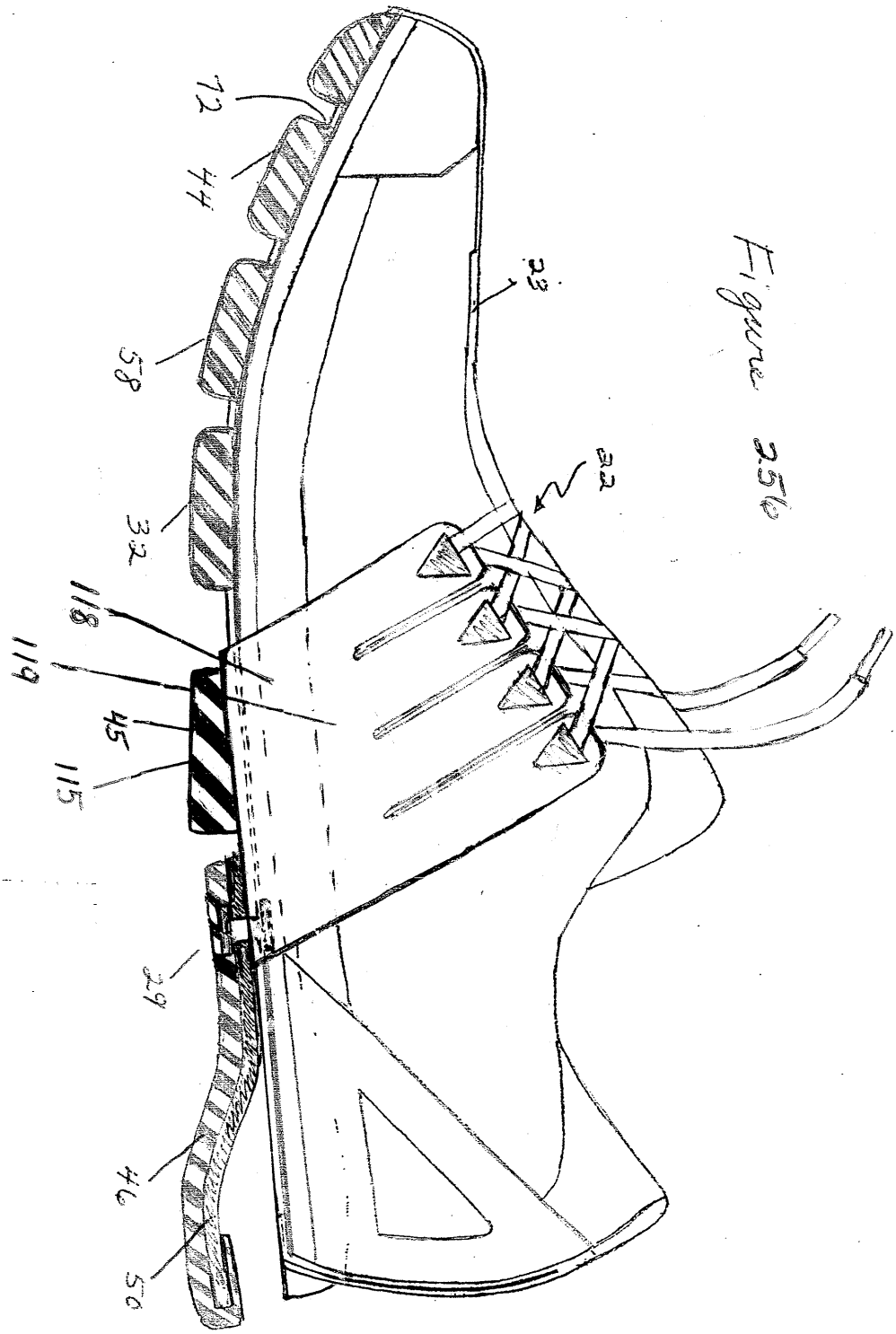
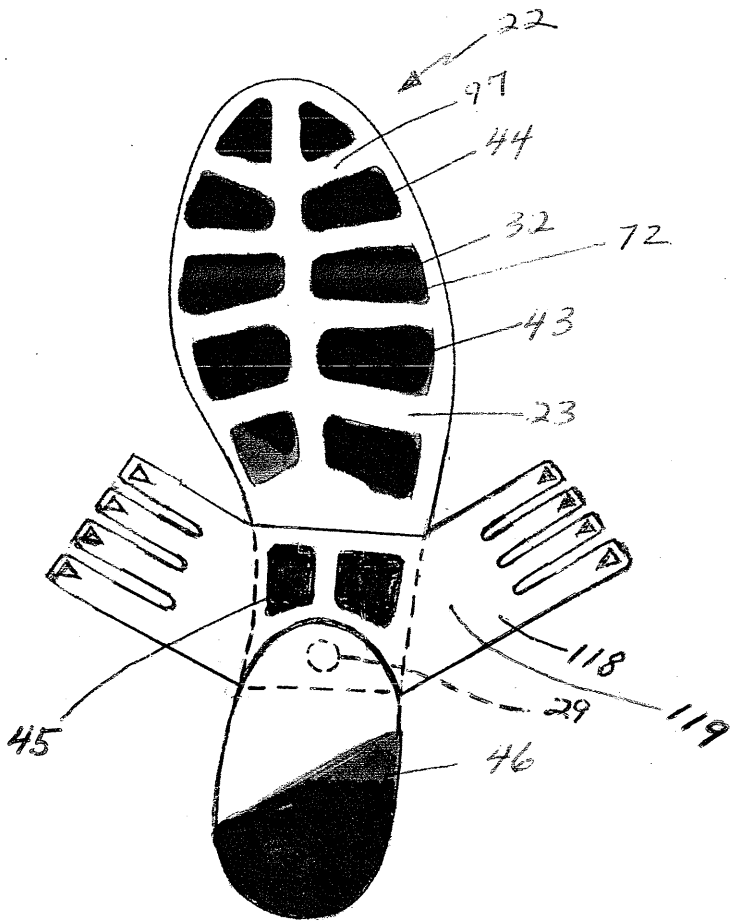


Figure 25b

Figure 257



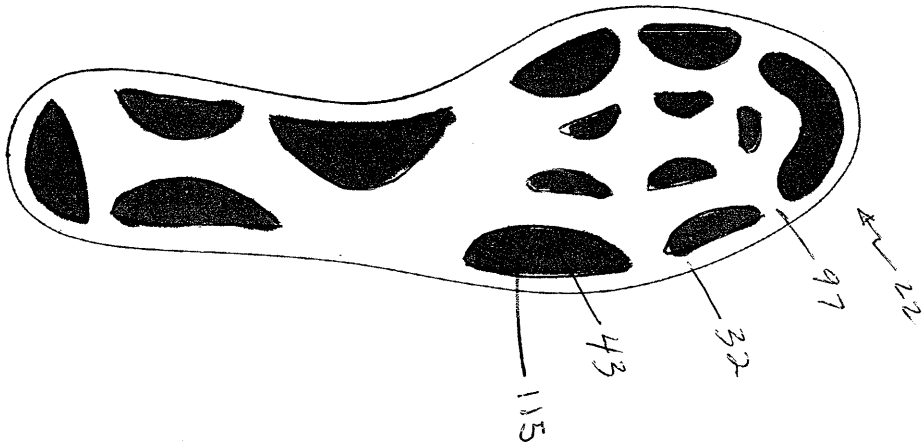


Figure 258

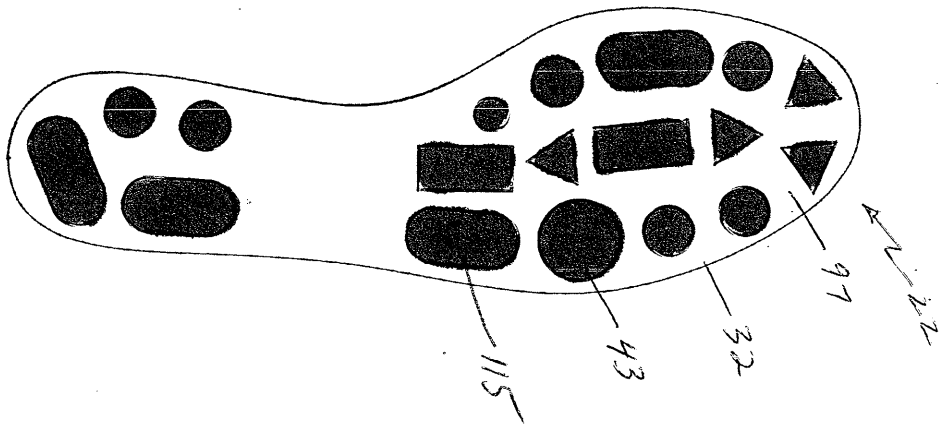


Figure 259

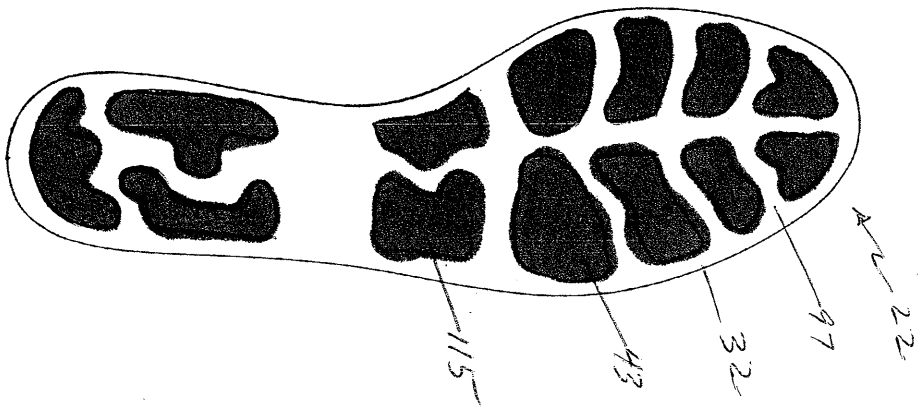


Figure 260

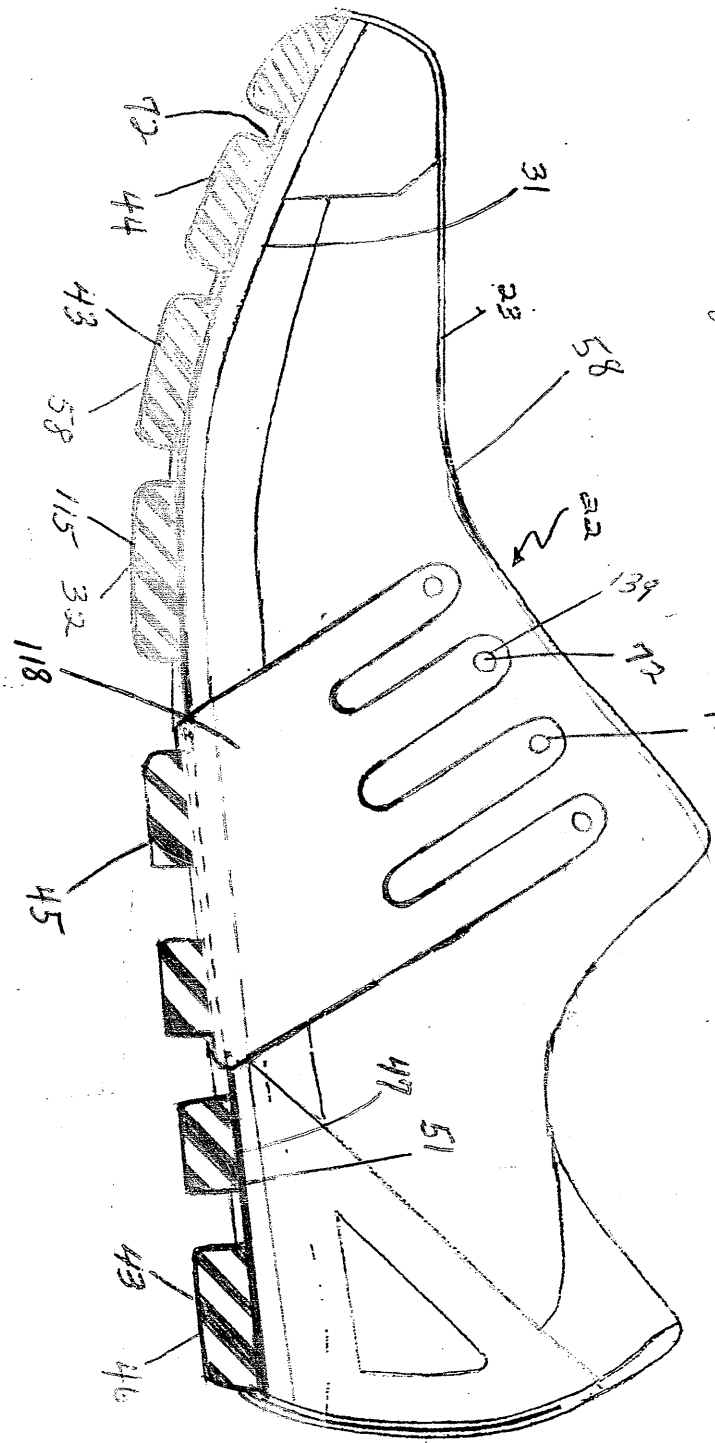


Figure 283

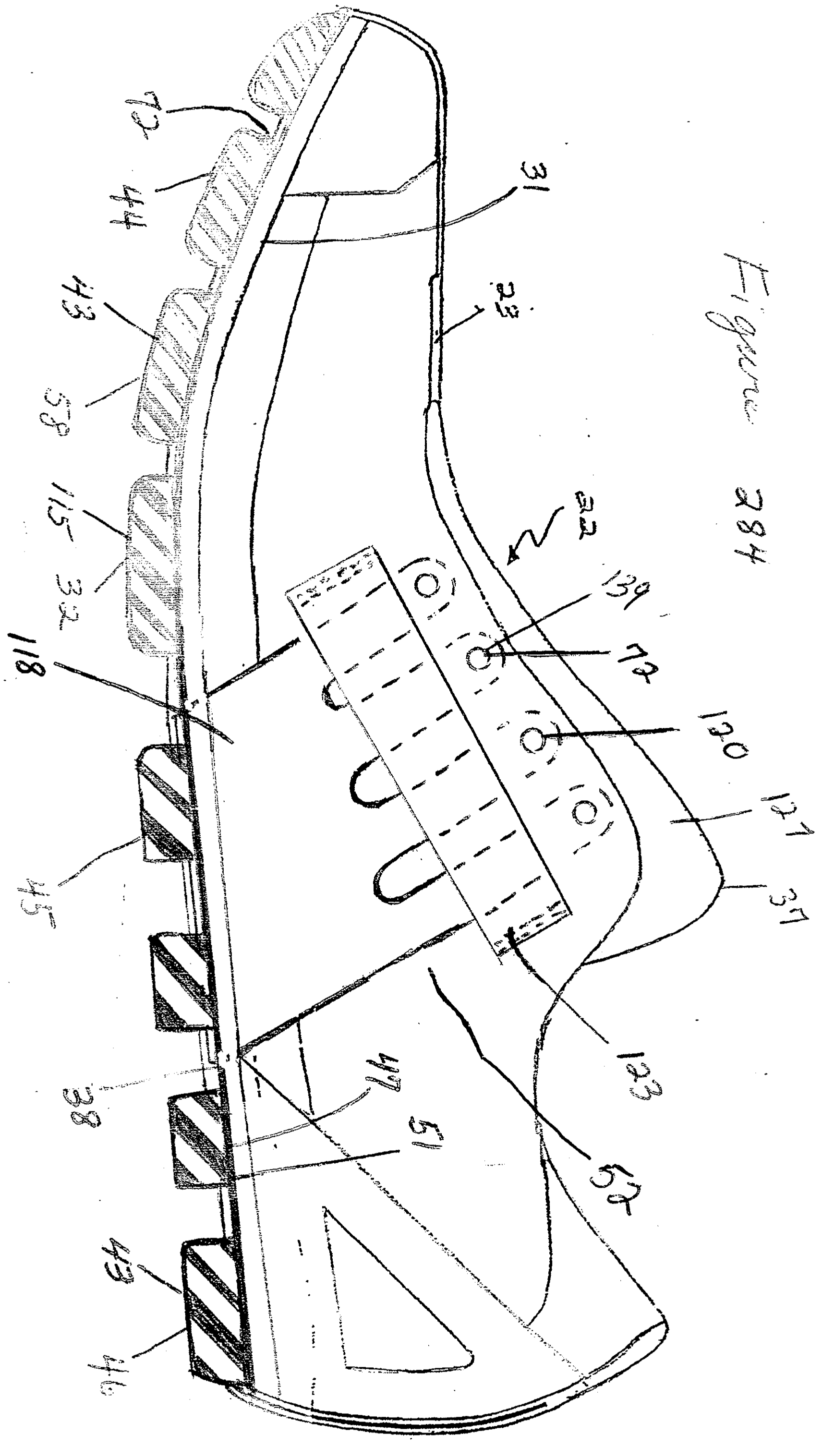
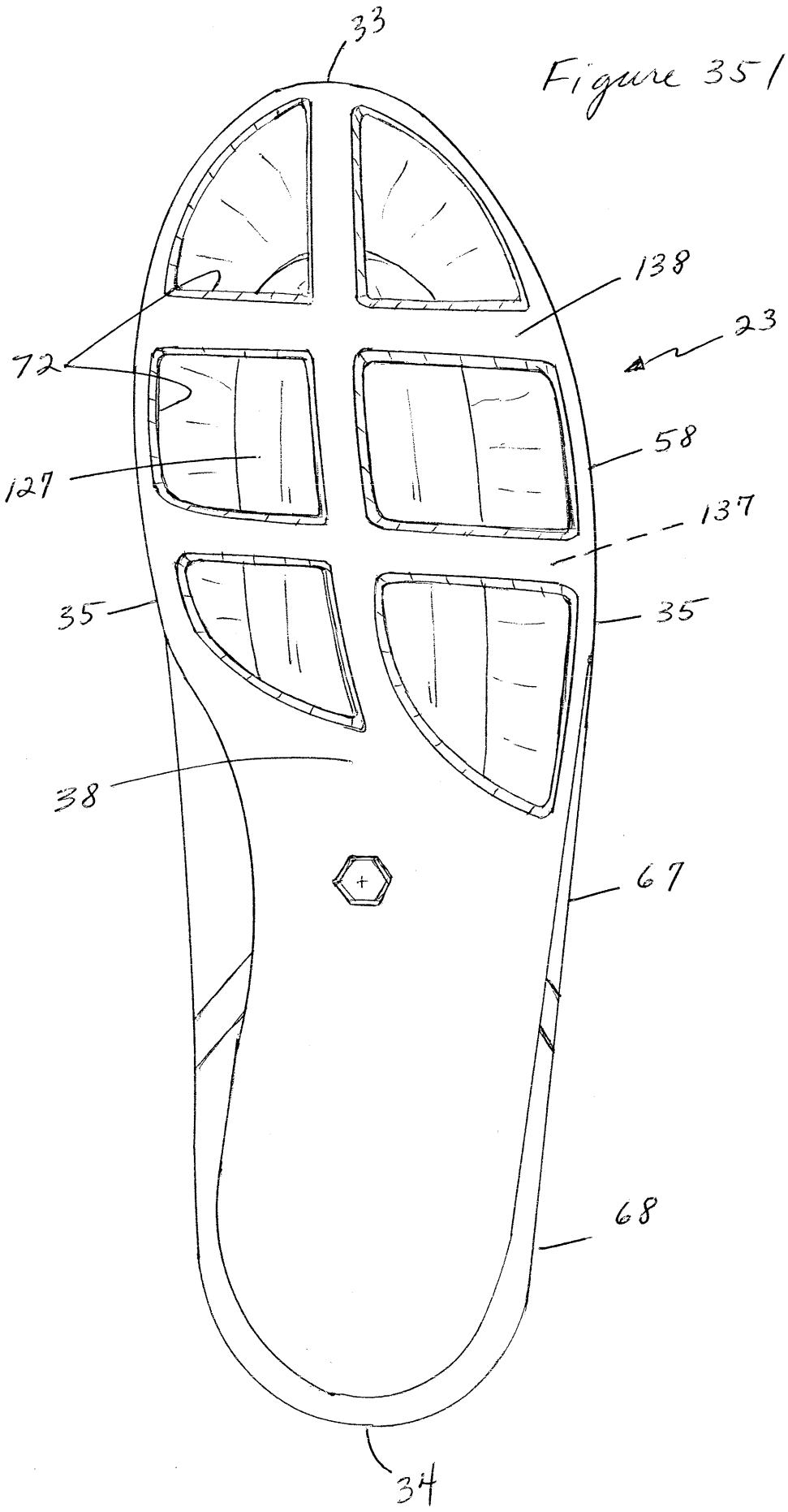
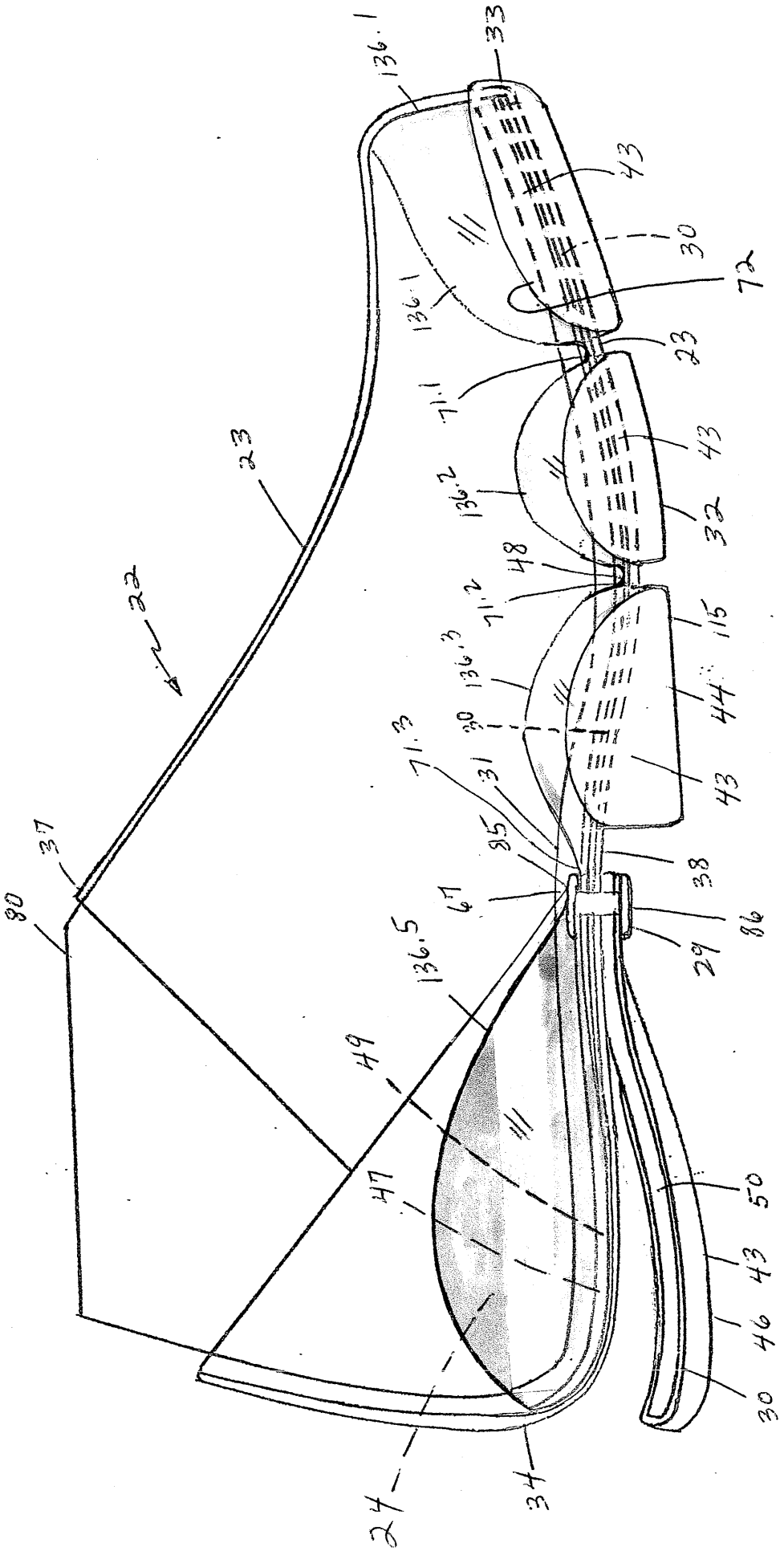


Figure 284

Figure 35/

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71.3
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35
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136.5
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80

Figure 352

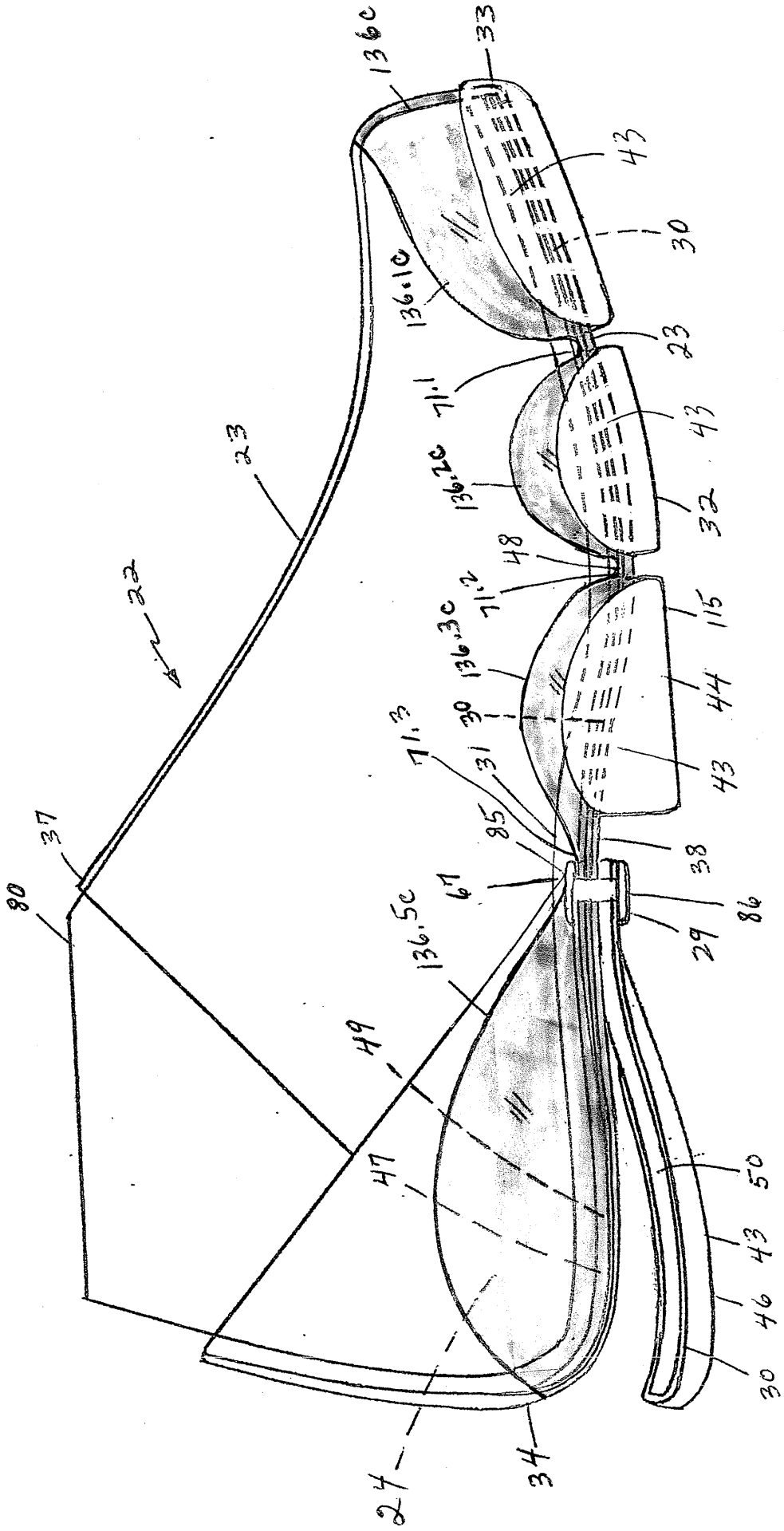
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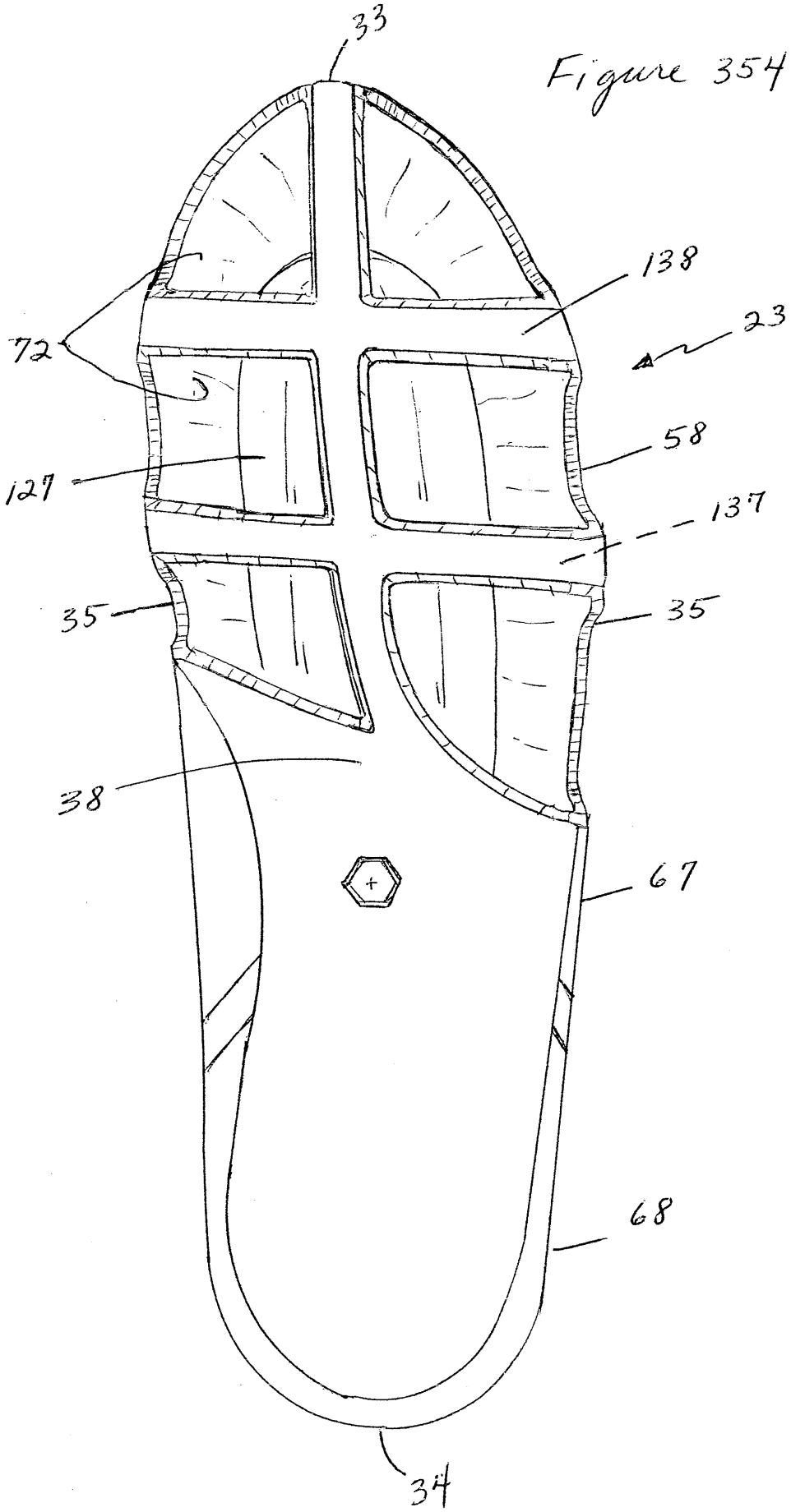
Figure 353

Figure 354



(12) **United States Patent**
Lyden

(10) **Patent No.: US 7,016,867 B2**
(45) **Date of Patent: *Mar. 21, 2006**

(54) **METHOD OF CONDUCTING BUSINESS INCLUDING MAKING AND SELLING A CUSTOM ARTICLE OF FOOTWEAR**

(76) Inventor: **Robert M. Lyden**, 18261 SW. Fallatin Loop, Aloha, OR (US) 97007

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 82 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **10/152,402**

(22) Filed: **May 21, 2002**

(65) **Prior Publication Data**

US 2003/0051372 A1 Mar. 20, 2003

Related U.S. Application Data

(63) Continuation-in-part of application No. 09/523,341, filed on Mar. 10, 2000, now Pat. No. 6,449,878.
(60) Provisional application No. 60/360,784, filed on Mar. 1, 2002, provisional application No. 60/345,951, filed on Dec. 29, 2001, and provisional application No. 60/292,644, filed on May 21, 2001.

(51) **Int. Cl.**
G06F 17/60 (2006.01)
A43B 13/28 (2006.01)

(52) **U.S. Cl.** **705/26**; 36/37; 36/38
(58) **Field of Classification Search** 705/26; 36/37, 38
See application file for complete search history.

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Press release, "Internet Mall Attracts Retailers," Oakland Tribune 9 (CA), pC1, Dec. 18, 1996 discloses that a specialty store copy caps (Cape Cod, MA). Allows clients to design their own hats on the PC's on Internet (see copies of various display of the www . . .).
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Primary Examiner—Jeffrey A. Smith
Assistant Examiner—Matthew S Gart
(74) *Attorney, Agent, or Firm*—Westman, Champlin & Kelly, P.A.

(57) **ABSTRACT**

The article of footwear taught in the present invention includes a spring element that can provide improved cushioning, stability, and running economy. Unlike the conventional foam materials presently being used by the footwear industry, a preferred spring element is not substantially subject to compression set degradation and can provide a relatively long service life. The components of the article of footwear including the upper, insole, spring element, and sole can be selected from a range of options, and can be easily removed and replaced, as desired. Moreover, the present invention teaches a method of making a customized article of footwear, and also a way of doing retail and Internet business.

90 Claims, 174 Drawing Sheets

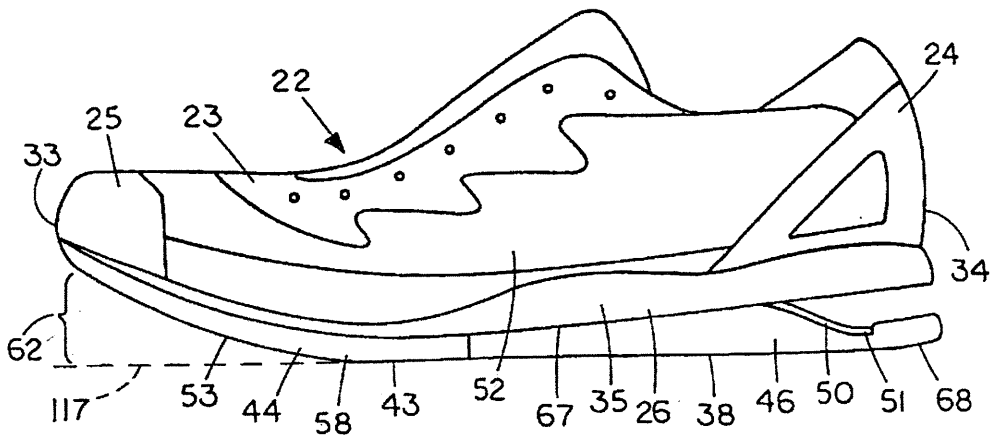


FIG. 44

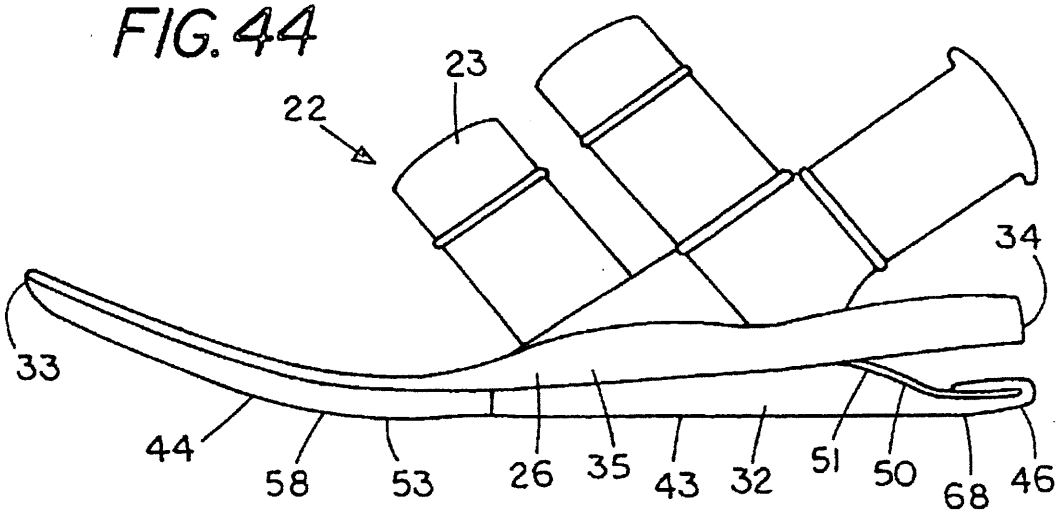


FIG. 45

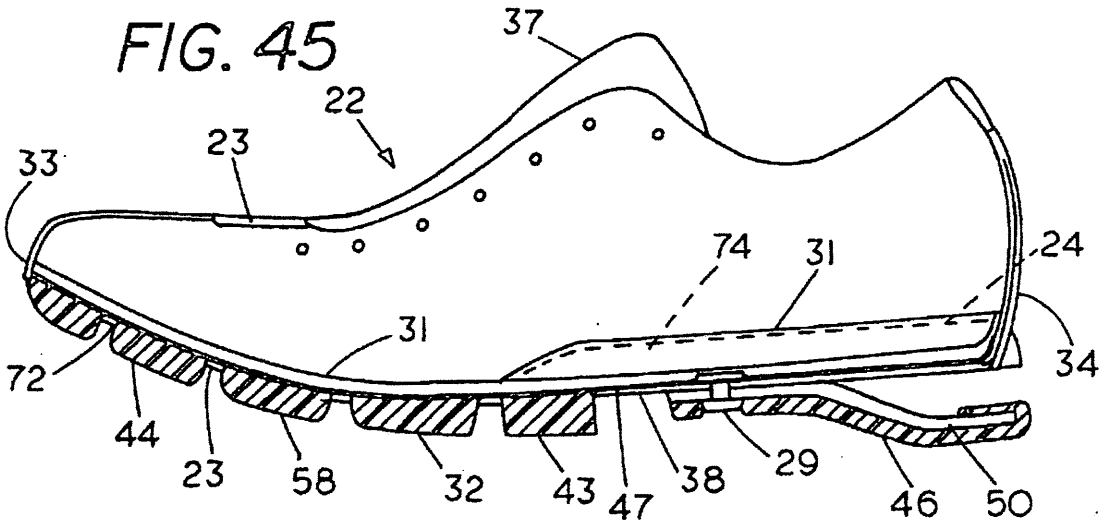


FIG. 46

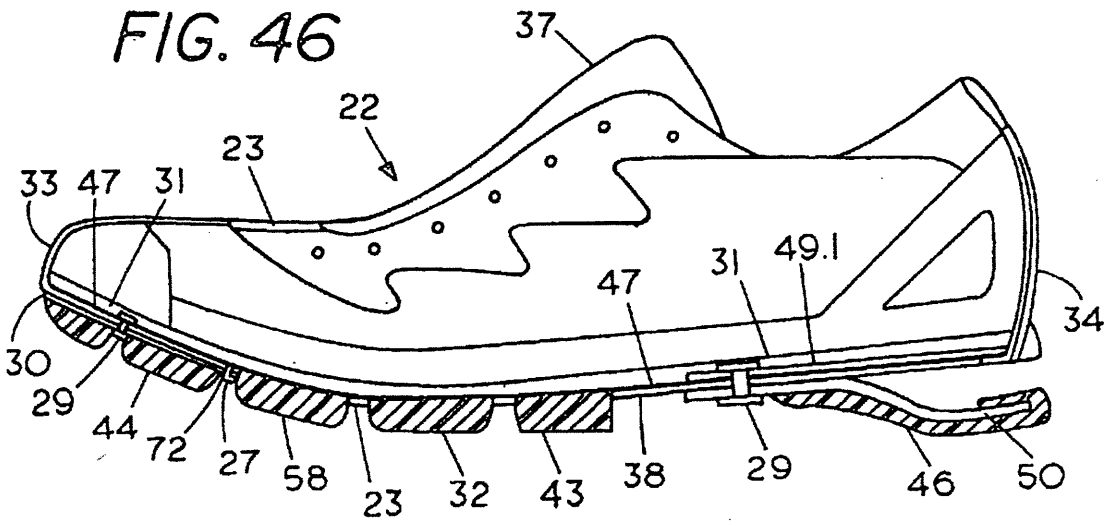


FIG. 47

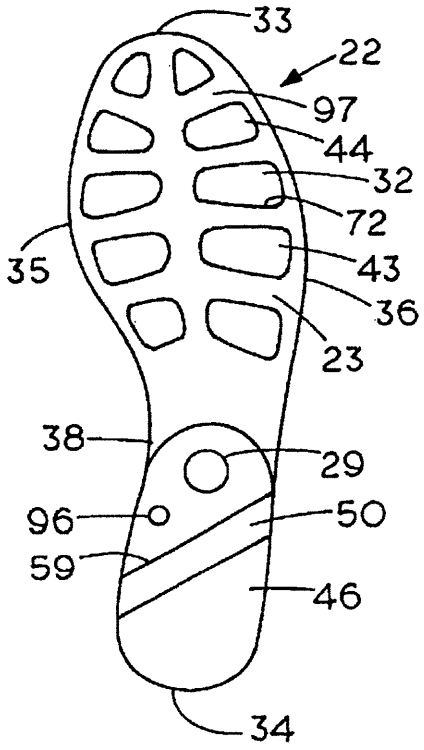


FIG. 48

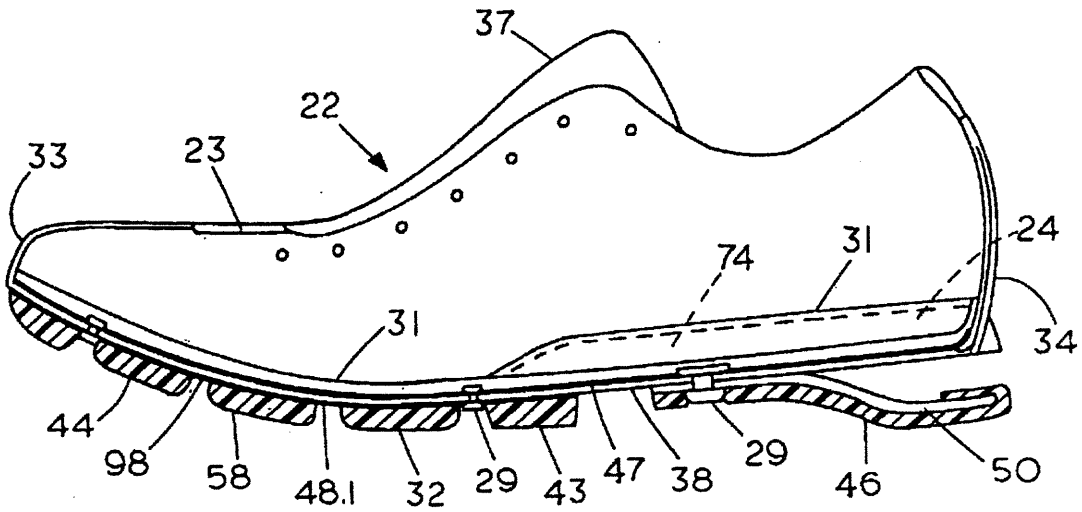
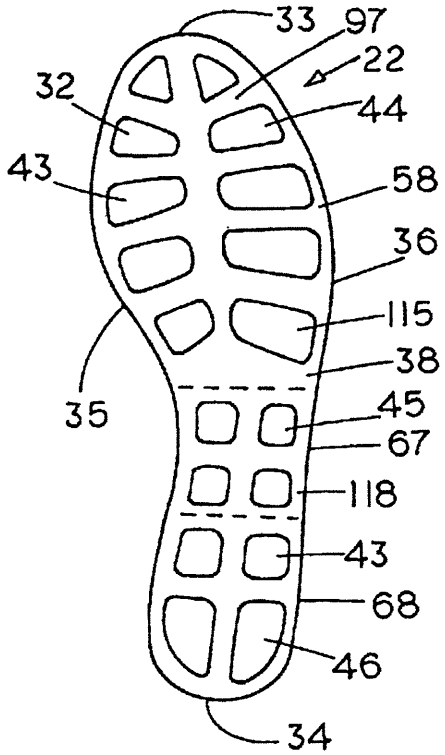


FIG. 254



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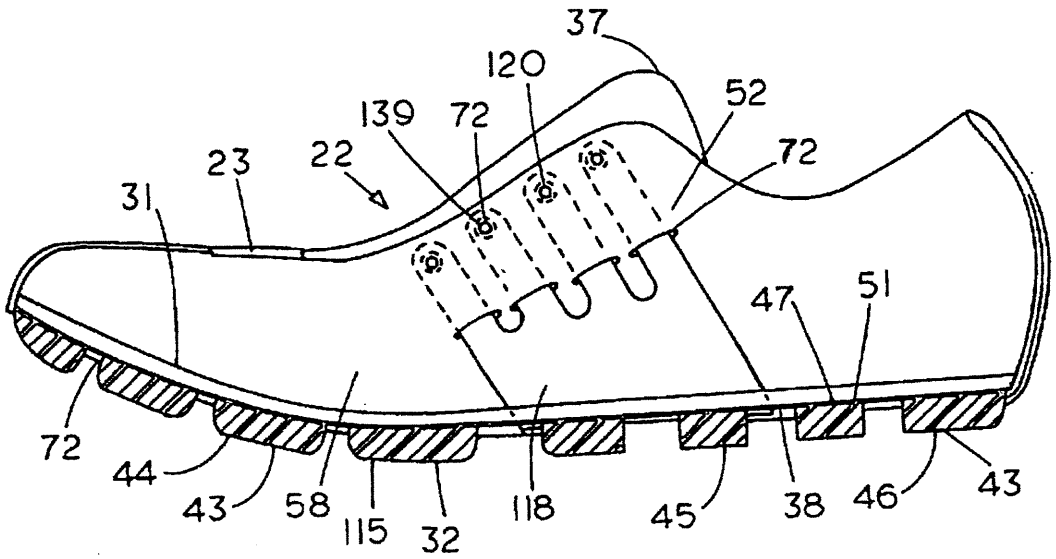
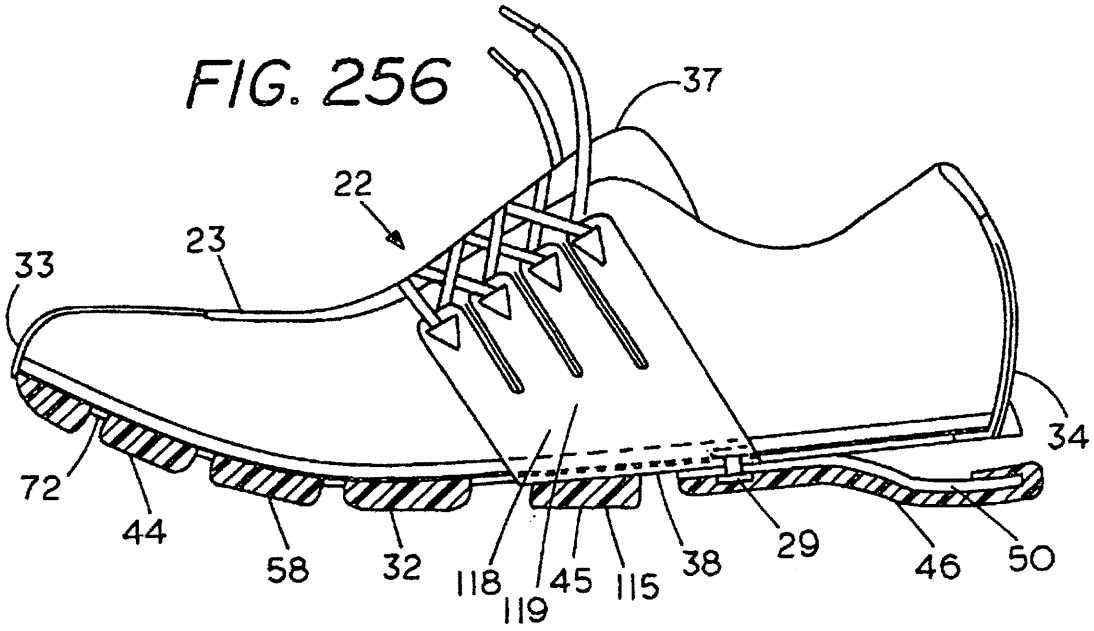


FIG. 256



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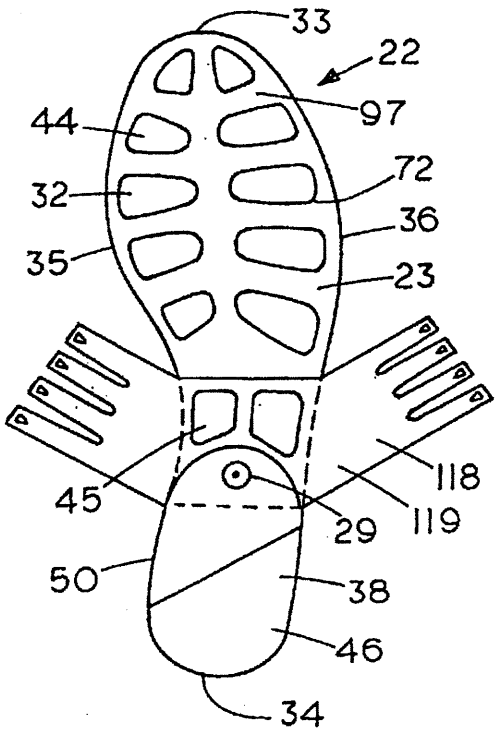

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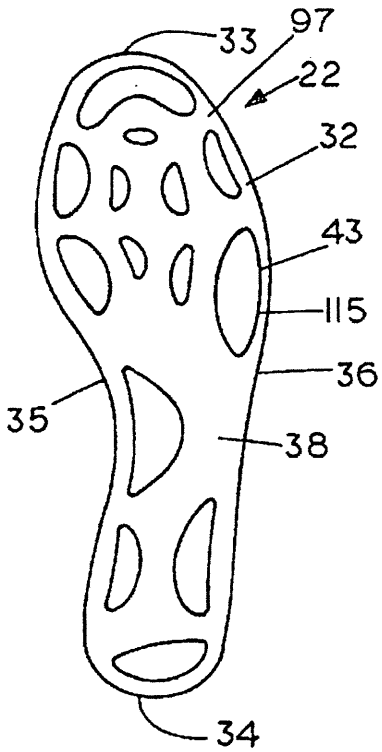

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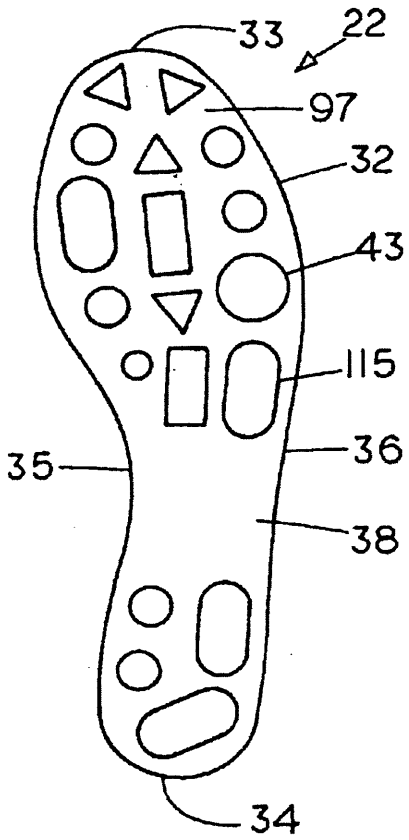


FIG. 260

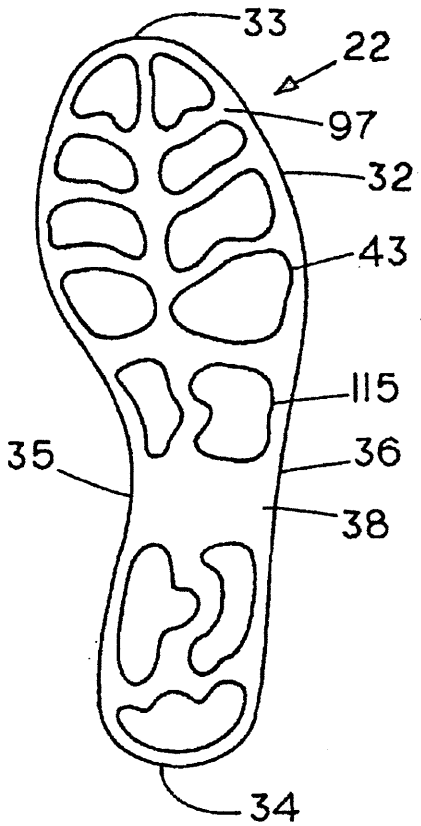


FIG. 281

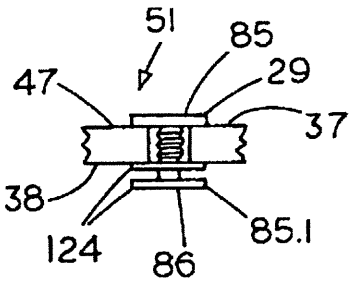
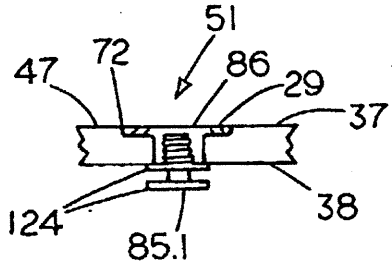


FIG. 282



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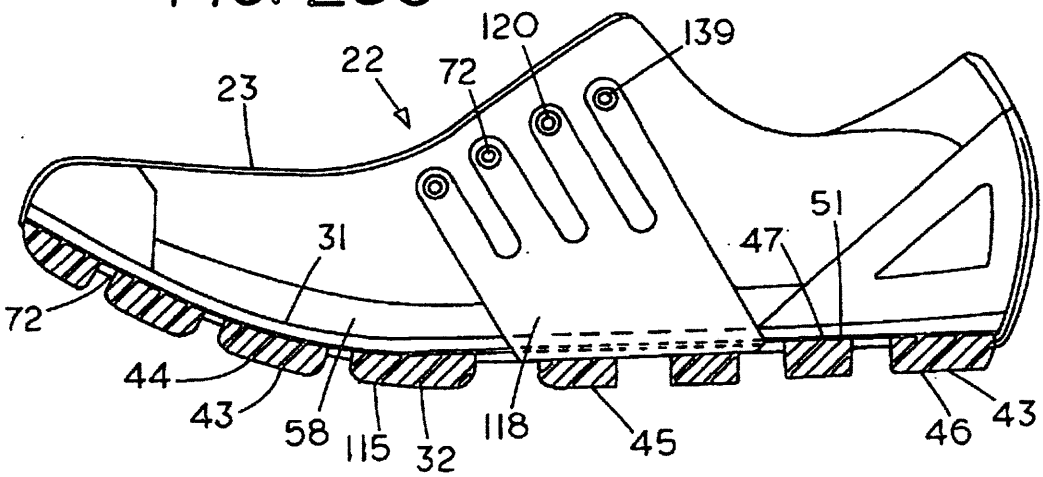
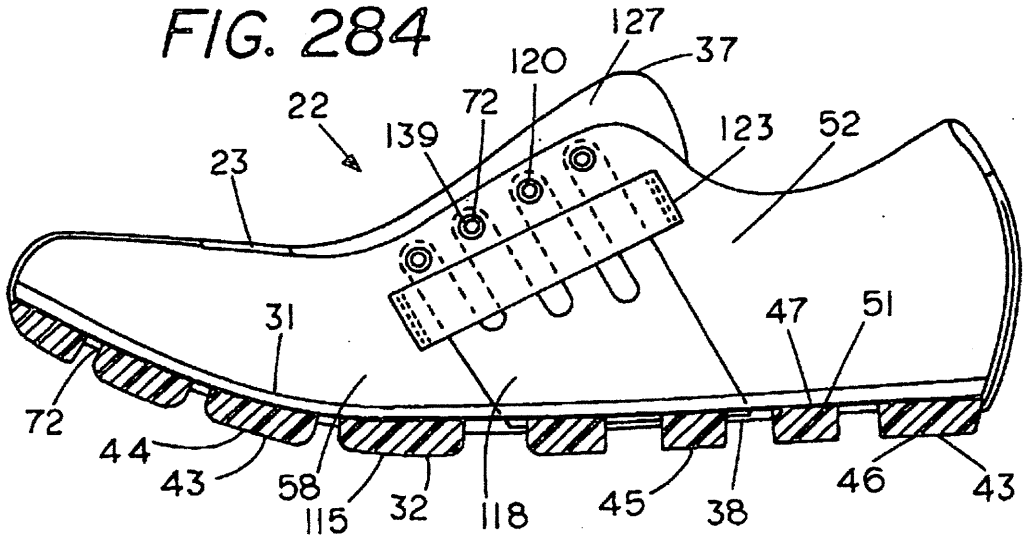


FIG. 284



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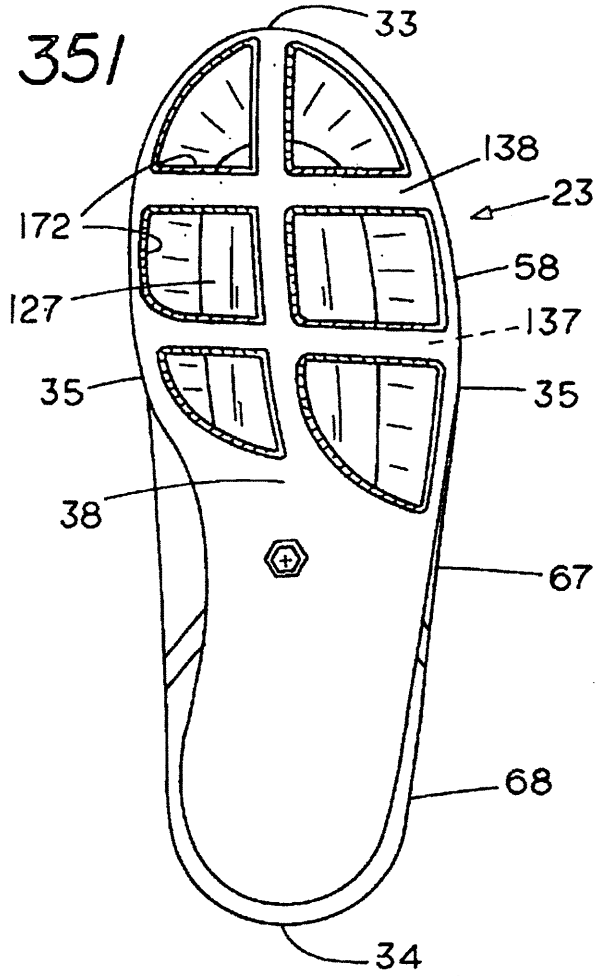

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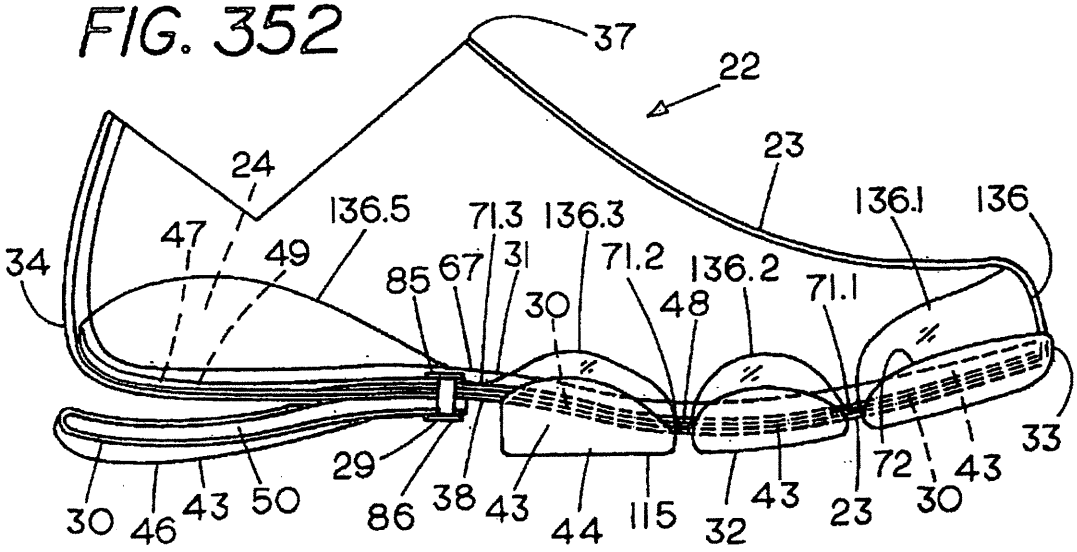

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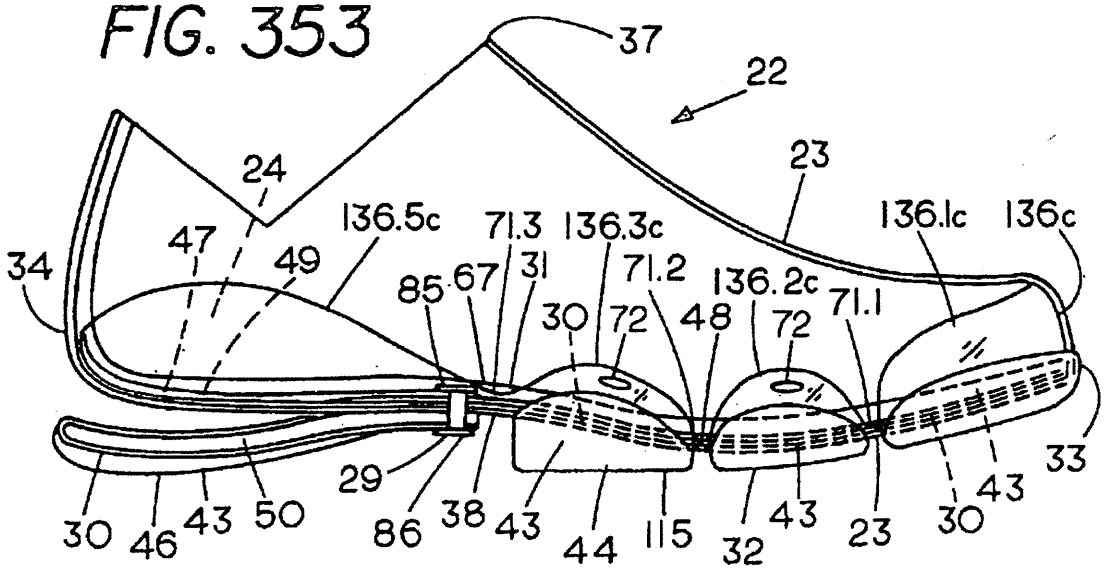

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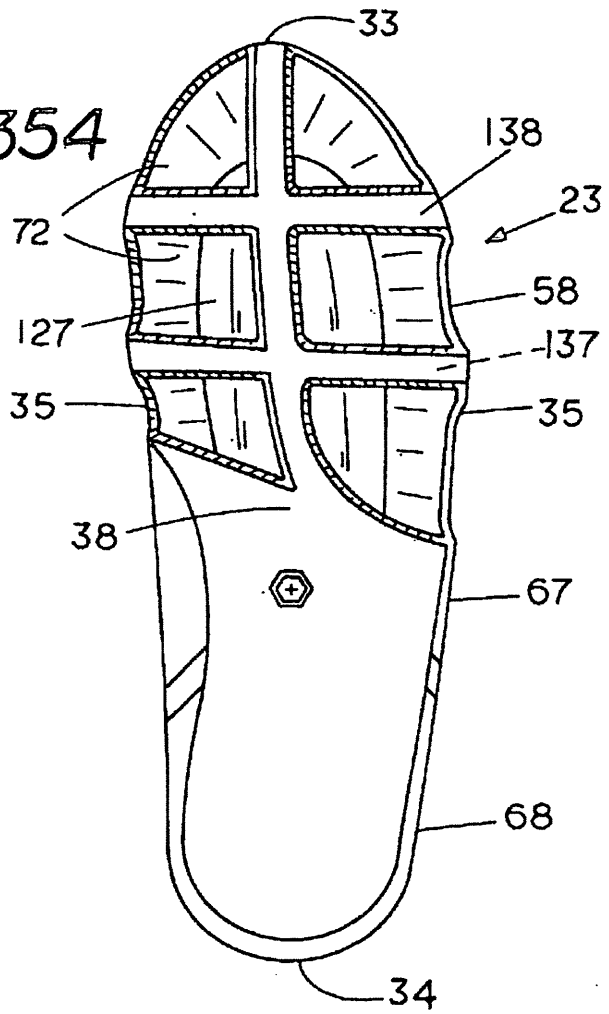

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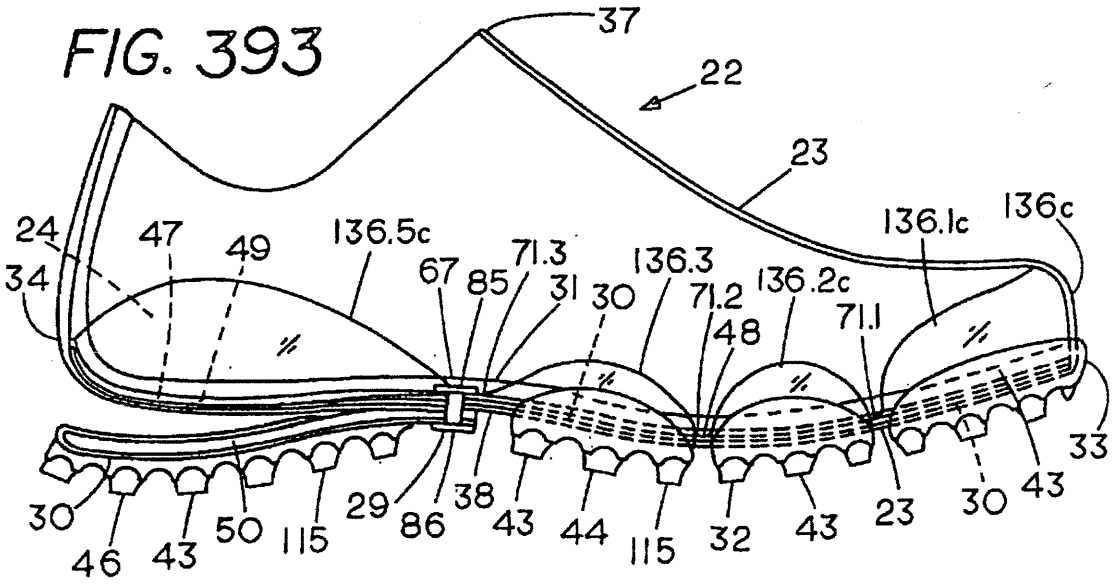

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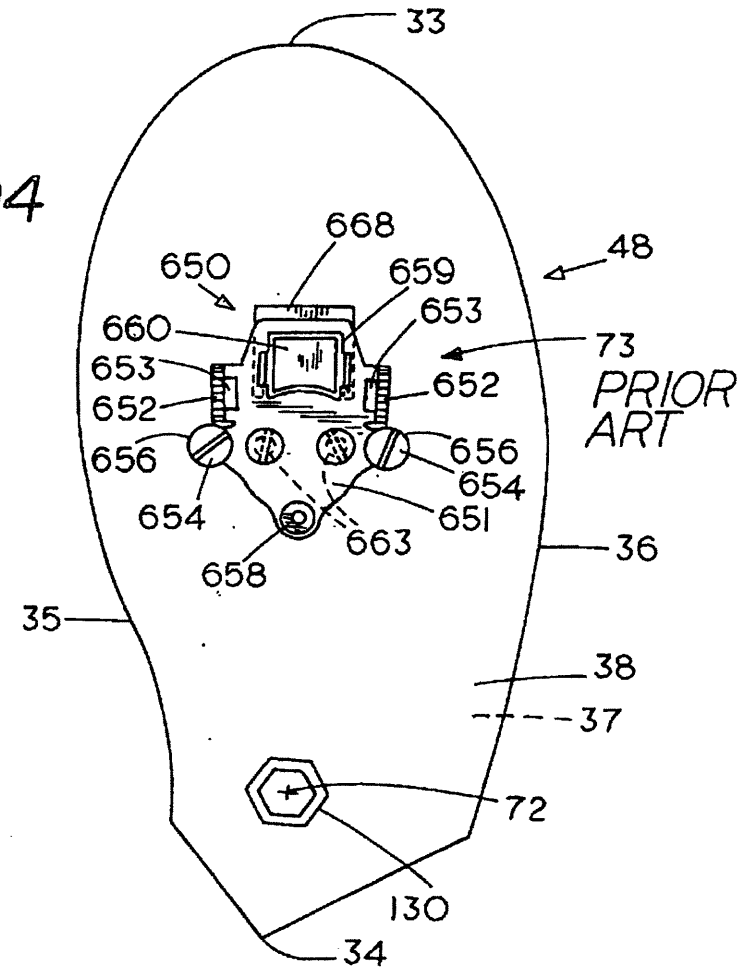

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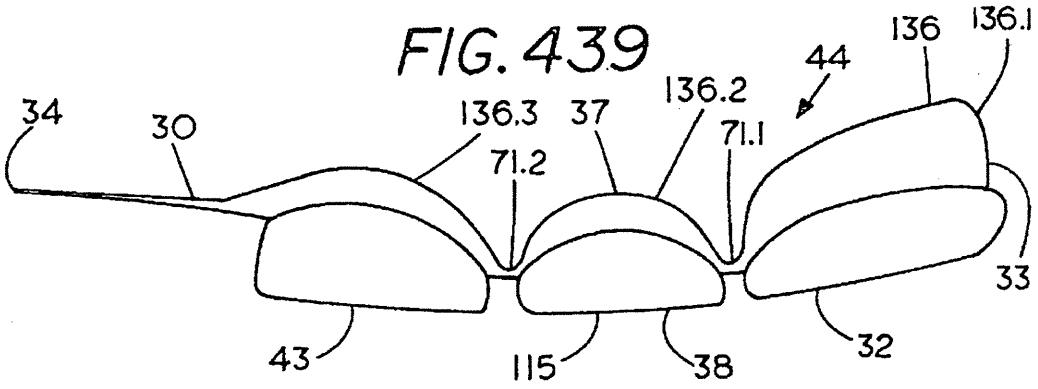

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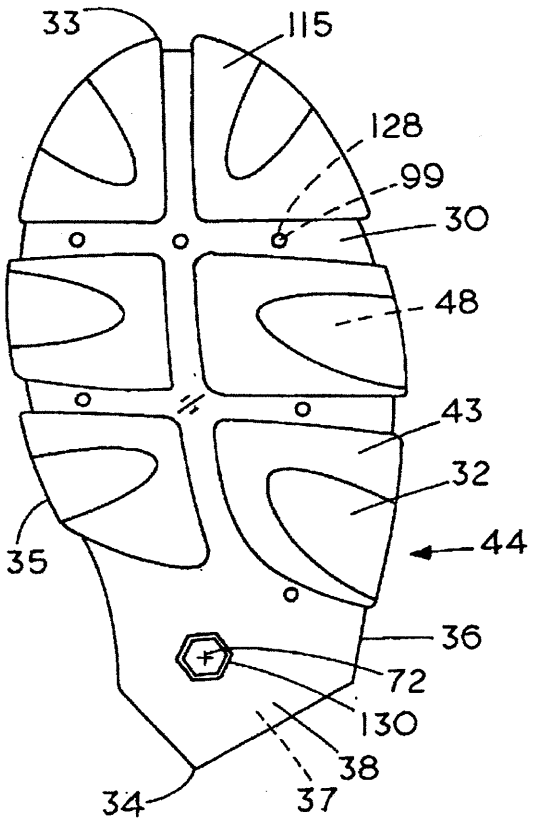

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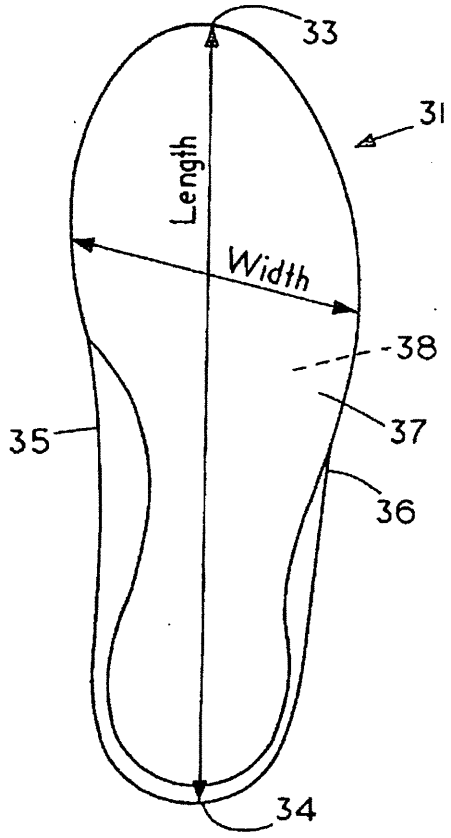

FIG. 491

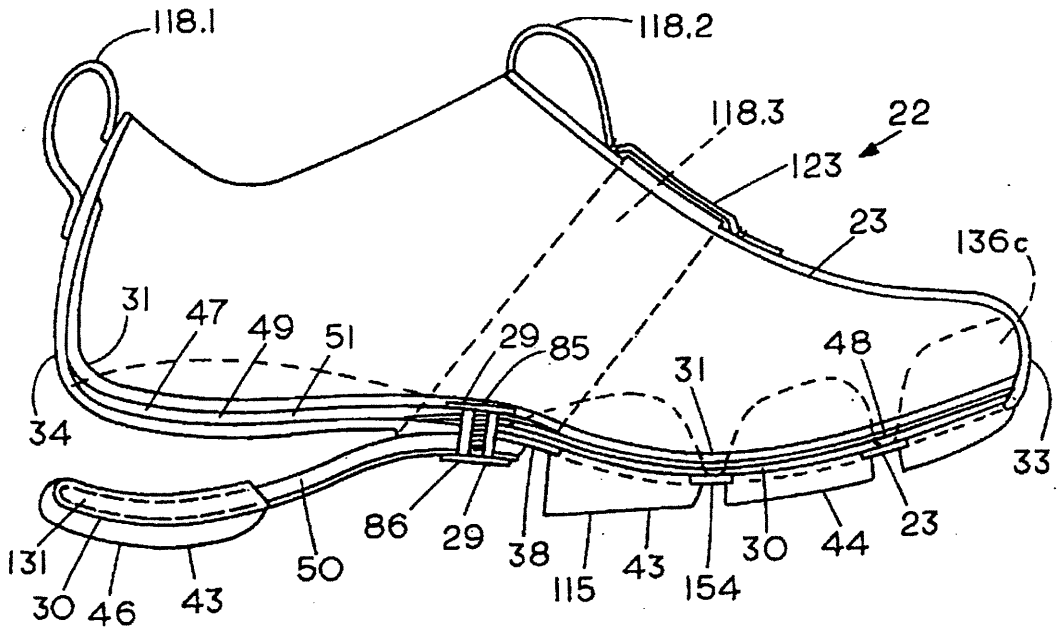

FIG. 492